MANUFACTURERS RECORD

A WEEKLY SOUTHERN INDUSTRIAL, RAILROAD AND FINANCIAL NEWSPAPER

Trade Name Registered in the U. S. Patent Office.

VOL. LXII. No. 4. WEEKLY. | BALTIMORE, AUGUST 1, 1912. | $4.00 A YEAR. SINGLE COPIES, 15 CENTS.

Manufacturers Record

PUBLISHED EVERY THURSDAY BY THE MANUFACTURERS RECORD PUBLISHING CO., BALTIMORE.

RICHARD H. EDMONDS, President.
FRANK GOULD, Vice-President.
VICTOR H. POWER, Treasurer.
I. S. FIELD, Secretary.

RICHARD H. EDMONDS, Editor and General Manager.

EDWARD INGLE, Managing Editor.

ALBERT PHENIS, General Staff Correspondent.

Branch Offices:
New York—52 Broadway.
Boston—643 Old South Building.
Chicago—1116 Fisher Building.
St. Louis—543 Century Building.

Subscription, - - - - - - - - - - $4 a year (payable in advance) to United States, Mexico, Cuba, Porto Rico, Hawaii and the Philippines.

To Foreign Countries (including Canada) in the Postal Union, $6.50 a year.

[Entered at the Baltimore Postoffice as second-class matter.]

BALTIMORE, AUGUST 1, 1912.

SOUTHERN DEVELOPMENT GAUGED BY COAL PRODUCTION.

Last year the output of coal in the South, aggregating 117,625,021 tons, was 23.7 per cent. of the country's production of 496,188,308 tons. In 1880 the 7,002,254 tons was only 9.8 per cent. of the 71,481,570 tons mined in the country. The advance in coal mining in the past 32 years as shown in the accompanying table is a fair gauge of the material development of the South in that period:

Tons of Coal Mined.

States.	1880.	1900.	1911.
Alabama.....	323,972	8,394,275	15,021,421
Arkansas.....	14,778	1,447,945	2,106,789
Georgia.....	*154,994	*333,291	165,330
Kentucky.....	946,288	5,328,964	13,706,839
Maryland.....	2,228,917	4,024,688	4,685,795
Missouri.....	844,304	3,540,103	3,760,607
Oklahoma.....	120,947	1,922,298	3,074,242
Tennessee.....	495,131	3,509,562	6,433,158
Texas.....	.....	968,373	1,974,593
Virginia.....	43,079	2,393,754	6,864,667
West Virginia.	1,829,844	22,647,207	59,831,580
Total.....	7,002,254	54,510,460	117,625,021
United States.	71,481,570	269,684,027	496,188,308

*Includes North Carolina.

Among the striking facts of the increase in coal mining in the South are the advances in several States. In 1911 Alabama mined more than twice as much coal as did the whole South in 1880, and West Virginia mined 5,320,000 more tons than the total Southern output of 1900. The total output of the South in 1911 was 46,144,000 more tons than the country's output in 1880.

While between 1900 and 1911 the output of the South increased from 54,510,460 tons to 117,625,021 tons, or by 63,141,561 tons, or at the rate of 115.8 per cent., the output in the rest of the country increased at the rate of only 75.5 per cent., from 215,173,567 tons to 378,563,287 tons, or by 163,389,720 tons. About the same proportions obtained in the increases in the amount of capital invested in manufacturing and in agriculture between 1899 and 1909. In that period the capital invested in factories in the South increased from $1,196,302,000 to $2,883,929,000, or by $1,687,000, or at the rate of 141 per cent., and the amount so invested in the rest of the country increased at the rate of 99.8 per cent., from $7,778,954,000 to $15,544,341,000, or by $7,765,387,000. Farm capital, including lands, buildings, live-stock, implements and machinery, increased in the South from $5,262,279,000 to $10,961,865,000, or by $5,699,586,000, equal to 108.2 per cent., and such capital in the rest of the country increased from $15,251,723,000 to $30,029,145,000, or by $14,777,412,000, or at the rate of 96.9 per cent.

A NEED FOR RAILROAD CAR WORKS AND LOCOMOTIVE PLANTS IN THE SOUTH.

Considering the remarkable development of railroads in the South and Southwest, it is surprising that no large locomotive and car building plants have been established in that section on a scale in keeping with the demand for rolling stock. It is true that there are at different points several car-building plants of moderate size and a locomotive plant at Richmond owned by the American Locomotive Co., but the demands for equipment by the railroads in the South are growing every year, and must be much greater in the future than in the past. It would seem to be entirely wise, therefore, from every point of view to secure the establishment on a very large scale at some suitable points in the Central South of car-building works and also of a locomotive plant. In that section can be had the iron, steel, lumber and labor needed and ideal locations for the building of cars and locomotives. The demand in the South for rolling stock must inevitably increase so such an extent as to justify railroads and railroad capitalists interested in the South in helping to bring about the establishment of such works. A splendid opportunity is presented for existing car and locomotive building companies to establish branch works in the South. The Baldwin Company or the American Locomotive Co. should be represented at some point in the Central South in a great locomotive-building plant. The American Car & Foundry Co. or some similar concern ought to be in the same section, with works large enough to take care of some of the South's demand for cars. The MANUFACTURERS RECORD would press this subject upon the attention of existing companies or of capitalists who may be interested in studying great manufacturing opportunities. The South is in the infancy of its industrial development. Its railroad operations will be doubled and quadrupled in the not very distant future, and the time has come when the financial backers of the great railway systems of that section should look to the establishment of car and locomotive building plants by independent companies or by existing companies.

Indicative of the preparations that are being made to meet the increased demand for locomotives, the Lima Locomotive Corporation, Lima, O., formerly known as the Lima Locomotive & Machine Co., is preparing to issue $2,000,000 of bonds for the purpose of increasing the capacity of the plant from about 300 locomotives a year, as at present, to from 900 to 1000. This company, which was established more than 40 years ago, builds locomotives for a number of railroads in the South, as well as for Western and Northern roads. Its great success in the building up of its business, as well as in its financial operations, should be a stimulus to the establishment of a locomotive plant in the Central South.

FEDERAL DUTY AS TO MISSISSIPPI RIVER FLOODS.

Suggestive of the enormous destruction of property in the whole Mississippi Valley by the floods of the early part of the year is the report of the Missouri Waterways Commission that the damage in the counties of Southeastern Missouri alone reached the sum of $13,2.5,000, only about $1,000,000 less than the assessed value of property in the three counties most affected. Five counties in all were damaged by the floods, the loss of $10,000,000 in land values, of $1,800,000 to crops, of $200,000 to buildings, of $100,000 to levees, of $100,000 in live-stock and of $550,000 to railroad property being the main items, and not including the losses of household goods, farm machinery and implements and stocks of merchandise.

No one acquainted with the strenuous and persistent efforts that have been made for many years to prevent the encroachment of the waters upon thousands of fertile acres can doubt that complete recovery will in time be made not only in the regions of Missouri that have been devastated, but also along the whole stretch of the Mississippi, from Cairo to the Gulf, wherever the levees have not been able to meet the strain of an unprecedented flood. But it is time for an end to be made to the succession of fearful wastes that occur at intervals of a few years, in spite of the efforts of man. The people of the Valley States have done their part for themselves and for the whole country that is interested directly and indirectly in the conservation and increase of the potentialities of the alluvial lands of the Valley. It is the duty of the Federal Government to lead, on a comprehensive and liberal scale, in the task of prevention and protection for all the future.

ANOTHER SOURCE OF INDUSTRIAL AND AGRICULTURAL WEALTH FOR THE SOUTH.

The soy bean as a possible source of oil production, as well as an agricultural crop of very great possibilities, is attracting much attention. Hon. James Wilson, Secretary of the Department of Agriculture, in a letter to the MANUFACTURERS RECORD, gives the following facts in regard to the soy bean in foreign countries:

This department has not made any extended investigations relating to the manufacture of oil from soy beans in this country.

In the following statement may be found the area and production of soy beans in Japan, 1906-1910, as reported by the Japanese Department of Agriculture and Commerce:

Area and Production of Soy Beans in Japan, 1906-1910.

Year.	Area. Acres.	Production. Bushels.
1906.....	1,129,515	18,004,357
1907.....	1,156,488	18,771,890
1908.....	1,215,062	19,927,929
1909.....	1,137,176	19,283,078
1910.....	1,171,773	17,387,789

No official statistics of the production of soy beans in China, Russia and other producing countries are of record in this department. However, in George Dornbusch's Floating Cargoes Evening List of May 2, 1911, it is stated that the total shipments of soy beans from Manchuria in 1909 were 1,470,870 tons, of which 400,000 tons were consigned to Europe. In 1910 the total shipments were 1,200,000 tons, of which Europe received 500,000 tons.

The following statement is quoted from a report of the British Vice-Consul at Vladivostok on the trade of that consular district: "The soy bean export to Europe through Vladivostok commenced in December, 1908, and shipments continued all through 1909 till October, the total amount exported to Europe being 200,000 tons. The cargo was nearly all destined to oil mills in the United Kingdom. The center of the trade for North Manchuria is Kharbin, and several British firms have recently opened buying agencies there."

In the statement below may be found the imports of soy beans into the United Kingdom in 1910 and 1911. Prior to 1910 they were not shown separately:

Imports of Soy Beans Into the United Kingdom by Countries, 1910 *and* 1911.

Country of origin.	1910. Tons.*	1911. Tons.*
Russia.....	96,981	117,236
China.....	174,415	102,123
Japan.....	149,958	3,278
Other countries.....	177	20
Total.....	421,531	222,657

*Ton=2240 pounds.

Imports of soy beans into Denmark, Germany and other European countries are not shown separately, being classed under the general term of oilseeds.

The imports of soy-bean oil into the United States for the year ending June 30, 1911, amounted to 41,105,920 pounds, this being the first record of the quantity imported. There is no record of imports of soy beans into the United States.

According to the information contained in Mr. Wilson's letter, the shipments of soy beans from Manchuria amounted in 1910 to 1,200,000 tons, of which 500,000 tons were shipped to Europe, a large proportion going to the oil mills of the United Kingdom.

The London Chamber of Commerce *Journal* for July, in referring to the development of the soy bean industry in connection with the importations into England from the East, says:

The soy bean of Manchuria has grown in commercial importance during the last

few years in a remarkable manner. In the East it has long been an important article of food. In Europe the oil pressed from the bean is used by manufacturers of margarine, soap and candles, in the manufacture of varnish and printing ink, and for waterproofing umbrellas. Soy bean meal is also stated to be used in making "brown" bread on the Continent. Beancake has long been used as a fertilizer and for feeding stock.

The Changchun-Kirin Railway, which is now under construction, will in a year or two open the way to the development of the Sungari region to its fullest capacity, with a consequent increase in the supplies of soy beans. The demand for this product in Europe shows no signs of slackening, and the North American Continent appears likely to be a growing market, especially for beancake for feeding purposes. Experiments in growing soy beans have been made in practically every British colony, but it seems doubtful whether the product could be profitably grown for export in competition with the Manchurian beans, which are raised under ideal climatic conditions and by the cheapest possible labor.

Welch, Holme & Clark Co. of New York, in writing to the MANUFACTURERS RECORD, say that soy bean oil is now largely used as a substitute for linseed oil, and add:

It comes mostly, as you no, doubt know, from China and Japan. These countries also have a large export business with Europe in the beans, and the beans are crushed in England and the oil shipped from there to this country and elsewhere. Linseed oil has declined quite considerably in the last month, and of course this will affect the value of soy-bean oil. The market for soy today is 6¼ to 6½ cents a pound. We know the South has been making some experiments in the raising of the beans, and if the farmers would pay the same attention to the raising of the beans as they do to cotton, no doubt this business would be developed very satisfactorily. Soy-bean oilcake is good food for cattle, but the consuming demand for the oil will depend largely upon the price of linseed oil.

Florida has probably made more progress in the cultivation of the soy bean than any other State in the South, and during the last year has been the chief source of supply for seed purposes, the demand being so large from other Southern States that Florida growers have been receiving as high as $4 a bushel. Investigations by the United States Department of Agriculture indicate that this bean is destined to be of very great value to the agricultural interests of the South. It is possible that it may become an important source of oil production either by existing cottonseed oil mills or by new mills built especially for this purpose.

The Department reports that the soy bean is the best annual legume to grow for forage in the Southern part of the cotton belt; that it is very valuable for feed for live-stock; that it is identical in feeding value with alfalfa, and yields from two to three tons per acre; that the soy bean bran is more valuable than cottonseed meal as a supplemental feed in the production of pork, mutton, wool, beef, milk and butter, and that a bushel of soy beans is at least twice as valuable as feed as a bushel of corn. It is reported that a yield of from 20 to 30 bushels of seed and 1½ to 2 tons of hay per acre is not uncommon.

These statements are merely confirmatory of reports made to the writer a few weeks ago by a number of farmers in Florida who are cultivating the soy bean to very great profit. They indicate, however, that the cultivation of this bean as a foodstuff, for the fattening of live-stock, as a hay producer and as a source of raw material for oil mills, has very great possibilities in the South. It only illustrates the fact that the South is only beginning to learn of the greatness of its potentialities in agriculture as well as in varied manufacturing interests.

MORE MONEY WOULD MEAN MORE POWER.

Mr. H. A. Kahler of O'Conner & Kahler, bankers, of New York, in recent letters to the MANUFACTURERS RECORD about the possibilities of the South and the reasons why railroads and others interested in Southern development should take hold of the situation more seriously than they have done, said:

I was impressed last summer when traveling in Europe with the excellent exhibits maintained in a number of cities by the Canadian Pacific. These exhibits were the centers of information which spread to vast numbers of people. I understand that thousands are leaving British ports every month for the lands of the Canadian Northwest. Many of these people could be brought into our own country, and they are the highest type of immigrants.

Mr. Kahler added that he could not help but feel that all Southern railroads are missing many opportunities for the development of their territory, and suggested the query as to whether anyone could imagine the progress that could be made if the land departments of the railroads of the South were handled with the same degree of energy and broadmindedness as the Canadian Pacific.

As the MANUFACTURERS RECORD has often said, the work of the land and immigration and industrial departments of Southern railroads is not handled as effectively as similar departments of Canadian and California railroads, because the financial backers of these Southern roads do not provide the money needed. Many of the men at the head of the immigration and land departments of Southern roads are expected "to make bricks without straw." Until the financial powers dominating Southern railroads take hold of the situation more vigorously than they have done, it will not be possible for these roads to accomplish one-tenth as much as could be accomplished by the men now in charge if they had the right kind of backing.

A SUGGESTION TO RAILROAD OFFICIALS.

If for one month in every year railroad officials, from the president down to the junior officers, would travel incognito over their lines, using not private cars nor Pullmans, but the day coaches and the regular trains operated, they would have an awakening to the inconveniences to which the public is subjected which would be very beneficial to the roads and to the public. It would be a wise thing if these officials would voluntarily undertake such inspection trips, and in every respect get exactly the same treatment that the public gets. They ought to buy their mileage books, and change trains often, and thus put up with the intolerable nuisance of the present system of exchanging tickets for mileage books and rechecking baggage half a dozen times when one checking would often be sufficient. They should travel on the branch roads as well as on the main lines, put up with the inconveniences and the unsanitary conditions of many stations, and purposely, without making themselves known, find out by personal experience exactly what the ordinary traveler has to endure. They would find many of their station agents gentlemanly, courteous and considerate in the extreme; they would find many others who would much better be out in the cornfield than acting as a railroad representative, dealing with the public. They would find many stations and depots well kept and cleanly; they would find many wholly unsanitary and of such a character that the health authorities ought to suppress them as a menace to health and life. They would find trains on many branch roads so antiquated and out of date that they ought long since to have gone to the scrap heap; they would find an amount of inefficiency of which they can get very little idea except through direct personal acquaintanceship with the situation by a study of this kind. Wherever they are not known they ought to inquire of the traveling men and the shippers and hear the local sentiment in regard to the railway and its treatment of passengers and traffic. A few months argo the writer, while in the South, very much to his surprise, heard so many criticisms volunteered against a 4000-mile railway system operating in the South and which he had always supposed to have friends everywhere that he made a mental note of the fact that he heard not one single word of commendation of the road, but in every direction voluntary criticisms against its management, its operation, and even against some of its conductors, of whom it was said in Florida that they sometimes sought to discourage settlers from locating in that State whenever they happened to get in discussion with a prospective settler on their train.

Doubtless the owners of that road and its chief officers would be as much surprised as was the writer at these critiscims. It may be taken for granted that comparatively few of the higher officials of the big systems of the South while traveling in that section ever hear exactly the same kind of criticisms that the ordinary traveler hears. It is a little ungracious to tell a man the shortcomings of his own enterprise, and so even those who have grievances will not always present them in person to the head officials. It is sometimes the case that local agents are not in harmony with the people of the community; that they are over-bearing, discourteous, in every way undesirable; and yet the local people under such conditions will often not make complaints to headquarters for fear that in some way the railroad or the local agent will injure them for their criticism. The MANUFACTURERS RECORD has seen some very striking illustrations of this.

If it be not possible for the higher officials of the railroads of the South to annually make such a quiet inspection trip as this, they ought to have some official, a man of the highest integrity, who could give his entire time to traveling incognito over the line on regular trains, and largely on day coaches, and putting up with every inconvenience which the traveling public has to stand, mainly that he may be able to intelligently measure the situation and give to the operating officials the facts which at present they do not know. With full information obtained in this way many things would be promptly changed to the benefit of the railroads and their passengers.

HELPING ON THE WORK.

A North Carolina reader of the MANUFACTURERS RECORD writes:

I am in the employment of a firm that is a subscriber to your MANUFACTURERS RECORD, and I enjoy very much reading the same, and find a great deal of interesting facts in your paper. I have gotten so interested in it that I take the liberty of enclosing you a few clippings taken from the papers around the State, which I trust will be of some interest.

The MANUFACTURERS RECORD appreciates the spirit which prompted this letter, with the clippings enclosed, as it expresses the feelings of thousands of readers throughout the South who are not only always interested in its work, but are ready to co-operate in making that work more successful. We believe that every subscriber to the MANUFACTURERS RECORD would find it to his own profit to cultivate on the part of his employes the habit of reading it and thus broadening their knowledge of the South and its possibilities for trade. We invite from our subscribers, and from those who, like this correspondent, are readers of it, though not subscribers, information about business conditions or business development in their vicinity.

INVENTIONS BY SOUTHERNERS.

In the five years, 1907-1911, of the total number of patents, 157,687, granted to citizens of the United States, 15,201, or 9.6 per cent., were granted to citizens of the 14 Southern States, not including Missouri and Oklahoma or the District of Columbia. The grants by years and separate States are shown in the following table:

States.	1907.	1908.	1909.	1910.	1911.
Alabama.....	156	134	184	181	163
Arkansas.....	153	112	142	135	135
Florida.....	111	110	96	114	104
Georgia.....	264	230	265	214	224
Kentucky.....	304	281	299	267	240
Louisiana.....	169	167	171	181	165
Maryland.....	283	230	299	305	272
Mississippi.....	108	97	115	120	115
North Carolina	154	173	205	182	191
South Carolina	72	65	69	86	65
Tennessee.....	232	244	252	248	175
Texas.....	549	524	544	670	591
Virginia.....	274	251	269	240	226
West Virginia..	237	302	198	210	196
Total.....	3,148	2,929	3,108	3,154	2,862
United States.	32,606	29,800	33,424	32,059	29,901

In the 29 years, 1883-1911, the number of patents granted annually to citizens of these Southern States increased from 1564 to 2862, or by 1298, equal to 83 per cent., while the number granted to citizens of the rest of the country increased from 19,399 to 26,939, or by 7540, equal only to 38 per cent.

In proportion to population the number of patents granted in each State and Territory in 1910 was as follows: Connecticut, 1 patent to every 1319; District of Columbia, 1 to every 1385; California, 1 to every 1516; Colorado, 1 to every 1675; Rhode Island, 1 to every 1723; Illinois, 1 to every 1778; Massachusetts, 1 to every 1828; New Jersey, 1 to every 1866; New York, 1 to every 1908; Nevada, 1 to every 2099; Ohio, 1 to every 2135; Pennsylvania, 1 to every 2626; Michigan, 1 to every 2715; Oregon, 1 to every 2735; Washington, 1 to every 2785; Idaho, 1 to every 3101; Wisconsin, 1 to every 3320; Montana, 1 to every 3357; Missouri, 1 to every 3486; Delaware, 1 to every 3613; Utah, 1 to every 3624; Indiana, 1 to every 3720; Nebraska, 1 to every 3749; Iowa, 1 to every 3816; Minnesota, 1 to every 4370; North Dakota, 1 to every 4372; Kansas, 1 to every 4427; Maryland, 1 to every 4702; Arizona, 1 to every 4984; Maine, 1 to every 5228; New Hampshire, 1 to every 5316; South Dakota, 1 to every 5357; Wyoming, 1 to every 5614; Vermont, 1 to every 5835; West Virginia, 1 to every 6230; New Mexico, 1 to every 6546; Texas, 1 to every 6593; Oklahoma, 1 to every 7052; Florida, 1 to every 7237; Virginia, 1 to every 9122; Kentucky, 1 to every 9541. The fewest patents granted in proportion to the number of inhabitants were in the following States and Territories: Porto Rico, 1 to every 159,716; South Carolina, 1 to every 23,314; Mississippi, 1 to every 15,904; Alabama, 1 to every 13,117; Kentucky, 1 to every 9541; Louisiana, 1 to every 10,039; Hawaii, 1 to every 10,000; North Carolina, 1 to every 11,551; Georgia, 1 to every 11,647; Ar-

kansas, 1 to every 11,663; Tennessee, 1 to every 12,484; Alaska, 1 to every 12,871; South Carolina, 1 to every 23,314.

Such proportions are by no means an absolute gauge of the inventive capacity of citizens of the several States. Many factors are to be considered. For instance, about one-third of the population of the South is a race that has not demonstrated any considerable originality or initiative for human progress and had contributed only comparatively slightly to the history of invention. Again, necessity, the mother of invention, has not always been as pressing in some sections where nature has been bountiful with her gifts as in others where human ingenuity has been called on to overcome natural disadvantages. Moreover, the fact of a patent granted is not as important as the usefulness of the article or idea patented. The harvesting machine was more epoch-making and of far greater benefit to mankind than a thousand inventions of trifles that go to swell the record annually, and it was also the real inspiration for other important inventions. So, too, the invention of the cotton gin, the thought of a Southerner, was a maker of world history and led to many others.

Generally speaking, a section in which manufacturing flourishes is a section in which invention is likely to thrive. The mechanical instincts of the South were suppressed for nearly three-quarters of a century because of the importance that cotton growing and other agriculture assumed. But revival of those instincts has been under way for a generation, and it is reflected in the increase in the number of patents granted annually to Southerners.

MEMOR ET FIDELIS.

Several years ago Hon. T. R. B. Wright of Tappahannock, Judge of the Twelfth Judicial Circuit of Virginia, embracing Essex, Westmoreland, Mathews, Middlesex, King and Queen, Northumberland, Gloucester, Lancaster and King William counties, began in a modest way, under the inspiration of love of his section, devotion to its memories and enthusiasm for its future, to assemble upon the walls of the courthouse at Tappahannock portraits of men who have been prominent in the making of the history of Essex county. This movement, appealing to patriotic instincts, has spread through the Northern Neck of Virginia until the courthouses have become centers for the preservation of memorials of the great men of those parts presented by their descendants or admirers of their lives. Historic facts of their careers are emphasized in the ceremonies connected with the presentations, and permanent records are entered upon the order-books of the courts. These ceremonies are usually the occasions for homecomings, with addresses, which are published broadcast as materials for the writing of history.

Judge Wright, the pioneer of this unique but effective movement, has placed lovers of Virginia history under greater obligations by gathering together in the volume of more than one hundred and fifty pages, illustrated with half-tone engravings, the materials bearing upon Westmoreland county that have brought to light in the presentation of portraits, mural tablets and other memorabilia. Westmoreland county, now nearly 200 years old, was the birthplace of George Washington, James Monroe, Richard Henry Lee, Bushrod Washington, General Robert E. Lee, Judge Richard Parker, Thomas Marshall, father of Chief Justice Marshall, and representatives of the Garnetts, Fauntleroys, Carters, Mayos, Brockenbroughs, Thompsons, Masons and other families distinguished in the annals of Virginia in colonial days and in more modern times. The volume is in two parts, the first part historical and the second setting forth the material attractions of the county.

REMARKABLE GROWTH OF NATIONAL BANKS IN THE SOUTH.

Individual deposits in National banks in the South are nearly $1,000,000,000. The actual amount at the time of the latest call of the Comptroller of the Currency was $964,769,002. That sum is $91,231,365 greater than the aggregate of individual deposits in all of the National banks of the country in 1880, and more than 70 per cent. of such accumulations in Southern National banks since 1880 has been made in the past twelve years, in which cotton-growers have received fair returns for their labor. The status today of more than 2000 National banks in the South is shown by States in the accompanying table:

National Banks in the South in 1912.

States.	No.	Aggregate resources.	Capital.	Individual deposits.
Alabama	85	$66,460,483	$9,700,000	$37,390,847
Arkansas	50	30,969,477	5,035,000	16,777,763
District of Columbia	11	53,712,862	6,102,000	25,995,913
Florida	46	56,002,128	7,080,000	32,442,851
Georgia	115	96,925,067	14,969,500	46,477,537
Kentucky	144	124,895,598	17,540,000	62,049,735
Louisiana	33	74,572,520	7,345,000	37,153,117
Maryland	107	165,713,977	17,582,710	82,669,336
Mississippi	31	22,581,633	3,255,000	12,772,451
Missouri	134	388,574,478	36,015,000	145,427,716
North Carolina	73	59,226,909	8,535,000	30,084,982
Oklahoma	293	88,210,629	13,285,000	51,449,878
South Carolina	46	38,827,558	5,735,000	19,104,032
Tennessee	104	105,513,843	12,647,500	60,667,158
Texas	515	327,986,842	46,781,000	170,969,611
Virginia	132	152,043,208	17,643,500	84,762,964
West Virginia	110	78,018,859	9,657,000	48,573,101
Total	2029	$1,929,966,411	$238,808,210	$964,769,002
United States	7372	$10,861,763,877	$1,023,570,675	$5,825,461,163

Handicapped as it was by the poverty and economic demoralization following the war, the South was slow to recover any of the banking potentialities that had been its in the later fifties, and, consequently, as late as 1880, the resources of its National banks, a system created for the country during the war, were but 9.2 per cent. of the total of such resources in the United States. But today Southern National bank resources constitute 17.7 per cent. of the total. Between 1880 and 1912 such resources increased from $194,084,459 to $1,929,966,411, or by $1,735,881,952, equal to 894.4 per cent., in the South, and from $1,911,702,167 to $8,931,797,406, or by $7,020,095,299, equal to 367.1 per cent., in the rest of the country.

In the same period the capital of National banks in the South increased from $53,889,930 to $238,808,210, or by $185,018,280, equal to 343.2 per cent., while in the rest of the country the increase was but 92.7 per cent., from $412,475,155 to $794,662,465, or by $382,187,310.

In 1880 the individual deposits in National banks in the South were $73,124,523. These have increased to $964,769,002, a gain of $891,644,479, or at the rate of 1219.3 per cent. In the rest of the country the increase has been from $800,413,114 to $4,860,692,161, or by $4,060,279,047, equal to 507.2 per cent.

Between 1880 and 1890 the average price per pound of midling upland cotton was a fairly remunerative one, the highest price in any one year having been 12.16 cents, in 1882, and the lowest 9.44 cents, in 1886. In 1890 the average price was 11.53 cents, the highest in the decade beginning with that year, a decade in which cotton prices were lower than in any other ten-year period except that between 1840 and 1850, and in 1899 the average price was but 6 cents a pound, the lowest in the history of the trade, with the exception of that of 1845. In 1900, with the crop more than a million and a half bales less than it had been in either of the two preceding years, the average price rose to 8.69 cents a pound (higher than in any preceding years) since 1891, and with some fluctuations it rose to 14.97 cents a pound in 1910. In the cotton year just ending the average price has been something more than 10 cents, in spite of the record-breaking crop of about 16,500,000 bales.

Low cotton prices between 1890 and 1900 had their effect in a marked degree upon the accumulation of wealth in the South, the increase of $4,162,750,000 in those ten years having been $516,770,000 less than the increase of $4,679,485,000 that had been made between 1880 and 1890 in the first flush of recovery from a great disaster. The increase in wealth since 1900 has been $9,580,800,000, more than twice the increase between 1880 and 1890, and more by nearly $500,000,000 than the actual wealth of the South in 1880.

These phenomena are paralleled in the history of National banking in the South. There was a greater increase both in aggregate resources and in individual deposits between 1880 and 1890 than between 1890 and 1900, there being a decrease in capital between 1890 and 1900. The resources increased $269,195,029 between 1880 and 1890, and $242,548,106 between 1890 and 1900. The capital increased $60,927,100 between 1880 and 1890, but fell off $8,313,060 in the next ten years. Between 1900 and 1912 the increase of $1,224,138,817 in the aggregate resources was 70.5 per cent. of the total increase of $1,735,881,952 since 1880. The increase between 1900 and 1912 of $132,404,240 in capital was 71.6 per cent. of the total increase of $185,018,280 since 1880, and the increase between 1900 and 1912 of $630,119,321 in individual deposits was 70.7 per cent. of the total increase of $891,644,479 since 1880.

Not only had the rates of increase in capital, aggregate resources and individual deposits of National banks in the South been far greater than the rates in the rest of the country, but one of the most interesting developments is that though the capital of National banks in the South in 1912 is only a little more than half of what the capital of such banks in the whole country was in 1880, the individual deposits in such Southern banks today are nearly $100,000,000 greater than the individual deposits in the National banks of the country at the earlier date.

WEST VIRGINIA COAL.

In presenting the figures of coal production in West Virginia in 1911, the United States Geological Survey makes a comment which should be an incentive to the upbuilding of industries in that State. For three years West Virginia has been second in rank among the coal-producing States of the country, and mined 59,831,580 short tons in 1911. The value of this output was $53,670,515. Some of the highest-grade bituminous coal of the country is produced in West Virginia, that State being one of the five Southern States containing 75 per cent. of the stock of coal suitable for iron-making coke. Yet, as the Survey points out, the average price of the State's coal is low as far as the returns to the producer are concerned. The average price per ton was 90 cents last year, whereas the average price per ton for coal in Illinois, ranking third in production, was from $1.05 to $1.14 in the past few years, while the average price for Alabama coal has ranged from $1.19 in 1909 to $1.34 in 1906. This difference is accounted for by the iron industry of Alabama giving a local market to the coal of that State and by the needs of manufacturing communities in Illinois or nearby territory.

Producing about 12 per cent. of the coal of the country and more than three times as much as Alabama, West Virginia in 1909 had $150,923,000 invested in factories producing annually to the value of $161,960,000, as compared with $173,180,000 factory capital in Alabama, producing to the value of $146,431,000. To be sure, West Virginia industries are using an increasing quantity of the natural gas produced within its limits. But it is hardly necessary for the suggestion to be made that West Virginia, in spite of its wonderful advance in the past few years in industry, is not using at home as much of its natural fuel as its other resources justify. Mr. Edward Wheeler Parker, the author of the Survey's report on coal production, says truly that in its high-grade, cheaply-mined, low-priced coal West Virginia offers advantages to the development of manufactures that should place it among the leading manufacturing States. As a matter of fact, it ranks, as to capital invested in factories, twelfth among the sixteen Southern States, surpassing only Arkansas, Florida, Mississippi and Oklahoma, and, as to the value of its factory products, tenth, surpassing only Alabama, Arkansas, Florida, Mississippi, Oklahoma and South Carolina. In an earlier report Mr. Parker showed his friendliness to the State in connection with coke from West Virginia coal when he said:

> In the quantity of coke produced West Virginia has for several years held second place among the States, but is outranked by Alabama in the value of the product. The reason for this lies in the fact that the output of Alabama has in the iron manufacturing center of Birmingham and vicinity a local consumptive market, whereas practically all of the West Virginia coke is shipped to furnaces outside of the State. In reaching for these markets the coke of West Virginia not only has to meet in competition the product from other States, but one district in the State becomes a rival with other West Virginia districts, and the result is exhibited in the statistics of production and value. * * * Next to Pennsylvania West Virginia possesses more wealth in supplies of coking and other high-grade coals than any other State in the Union, but as long as both the coal and the coke are continued to

be shipped out of the State, West Virginia will not attain the position she should occupy as a manufacturing State, nor will the miners of coal and makers of coke receive a just return for their products.

In coal and coke West Virginia is exemplifying a situation which is quite common to the South, the opportunities still existing for utilization as completely as possible at home of the natural resources for manufacturing. The South as a whole has now several hundred million dollars more capital invested in manufacturing than the whole country had in 1880, but the value of the South's manufacturing products is several hundred million dollars less than were the values of the country's manufactured products at the earlier date. The reason is that a large part of the South's manufactured products represents the earlier manipulations of raw materials, which are given greater values in subsequent handlings, illustrated by the difference between the price of the value of a pound of pig iron and the value of that same pound of iron turned into watch springs. With about 275 distinct industries, however, the South is gradually increasing the number of the manipulations of its industrial materials, with the result of a greater aggregate value of the finished products. The consummation that is desired will be had when the suggestion as to the use of West Virginia coal and coke within the limits of the State is applied all along the line to the whole South.

FAITH WITHOUT WORKS IS WORTHLESS.

Faith without works is of no effect.

You may claim faith great enough to move mountains, but if you do not back your faith with evidence of it as a living, working reality, you will never move even an ant hill.

You may have unbounded faith in the richness of the South's resources, in the attractions of your own town or city, in the merits of your individual business, whether it be making pins, or building locomotives, or operating a railroad, but unless you throw the energy of your life into letting the world know the quality of your pins, the character of your locomotives, the advantages of the country in which you live, the resources of the region tributary to your lines, or the facilities offered for travel, you will never accomplish much for the upbuilding of your community, for the selling of your pins or your locomotives, or the creation of increased transportation business.

More than 1000 of the foremost business institutions of America show their faith by their works as advertisers in the MANUFACTURERS RECORD. In every issue there is to be found this splendid array of business concerns—manufacturers of and dealers in almost every kind of machinery, railroads, towns, financial houses—who recognize that the best way in which to advertise the fact that with them faith and works go hand in hand is to make known through the advertising pages of the MANUFACTURERS RECORD what they are doing, what they have to sell or what they offer of interest to the public. If you are not numbered among the thousand or more representative business concerns whose announcements are to be found in our advertising pages, is it not time to prove your faith by your works?

Study these advertising pages. You will find them intensely interesting. They present a panorama of the work of the great business institutions of America. In them you will find presented the advantages of an endless variety of machinery, of equipment for railroads, for factories, for contractors and others. You will find the cards of architects and engineers and other professional men whose services you may need. You will find the advertisements of railroads, presenting with great clearness the varied advantages of different parts of the South and inviting correspondence from you that you may learn more about the localities represented. You will find the advertisements of financial houses, many of them largely interested in the development of the South. Whether you read or do not read the editorial pages of the MANUFACTURERS RECORD, be sure to read the advertising pages, for in them you will find contributions from over a thousand business men and institutions who present to your attention the things in which they are most interested and in which they believe you should be interested.

INDUSTRIAL ACTIVITIES IN SOUTH

Since the beginning of the year the MANUFACTURERS RECORD has published nearly 35,000 items relative to the development of numerous industries, erection of buildings and other interests of a varied and general business character in the South and Southwest. These brief statements (exactly 34,937 in number) have appeared daily in the *Daily Bulletin* and weekly in the MANUFACTURERS RECORD. Abridged summarized statements have been shown in these pages in the first issue of each month. Items for July are concisely summarized in the accompanying table. "Machinery, Proposals and Supplies Wanted" column includes requests for information, prices, etc., wanted by readers and subscribers in Mexico, Central America, Panama, Russia and India.

The table for July follows:

Industrial and Developmental.	
Bridges, Culverts, Viaducts	51
Canning and Packing Plants	30
Clayworking Plants	8
Coal Mines and Coke Ovens	40
Concrete and Cement Plants	2
Cotton Compresses and Gins	47
Cottonseed-oil Mills	26
Drainage and Irrigation	40
Electric Plants	68
Fertilizer Factories	13
Flour, Feed and Meal Mills	26
Foundry and Machine Plants	34
Gas and Oil Developments	41
Ice and Cold-storage Plants	33
Iron and Steel Plants	2
Land Developments	77
Lumber Manufacturing	73
Metal-working Plants	10
Mining	36
Miscellaneous Construction	46
Miscellaneous Enterprises	87
Miscellaneous Factories	144
Motors and Garages	32
Railway Shops, Terminals, Roundhouses, etc.	14
Road and Street Work	198
Sewer Construction	79
Telephone Systems	17
Textile Mills	46
Water-power Developments	18
Water-works	66
Woodworking Plants	45
Buildings.	
Apartments	104
Association and Fraternal	44
Bank and Office	100
Churches	114
City and County	66
Courthouses	29
Dwellings	432
Government and State	28
Hotels	52
Miscellaneous	91
Railway Stations, Sheds, etc.	39
Schools	227
Stores	238
Theaters	20
Warehouses	76
Railways.	
Steam	178
Street	23
Financial.	
Corporations	147
New Securities	249
	3,702
Burned, etc.	111
Machinery, Proposals and Supplies Wanted	486
Total for July	4,299
Items previously summarized for January, February, March, April, May and June	30,638
Total to August 1	34,937

SELF-HELP AT COLLEGE.

Different Phases of the Effort at Georgia University.

Athens, Ga., July 22.

Editor Manufacturers Record:

I was very much interested in your editorial regarding self-help in education.

We have in the University of Georgia at Athens 650 men. Of these, 114 are paying all of their expenses; 112 more are paying a part of their expenses; so you see that the demand for self-help is considerable. A considerable number have work as stenographers or are doing clerical work around the institution, as well as work of this nature in town. Also there is a number of men who work Saturday afternoons and holidays in the various stores in the city, in some instances making a sufficient amount to pay their board. The dining hall furnishes employment to a few others. The college has employed students to collect rent from a number of houses that it owns. A few people in the city have also employed students for the same purpose. One of the most helpful means has been the agencies, both here at the college and during the summer. Several men have made a sufficient amount of money during the summer from agencies, especially from the sale of aluminum ware, to pay all college expenses. The self-help committee is doing all in its power to help secure work for the summer rather than during the school year.

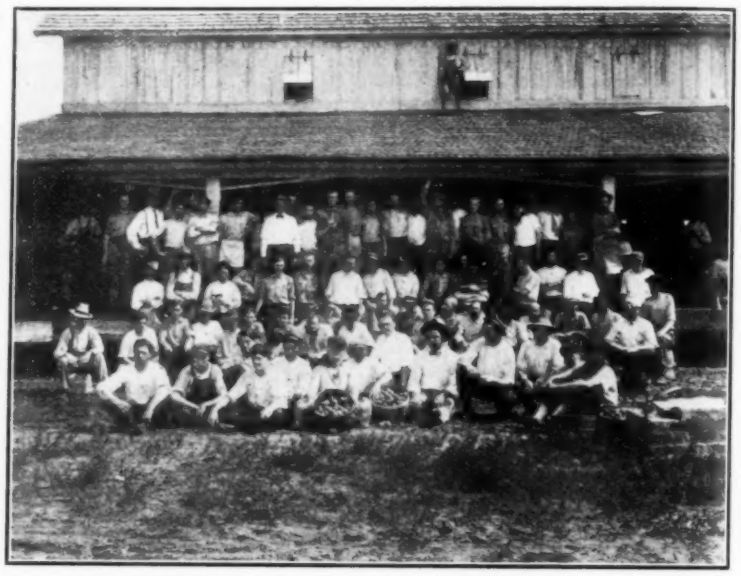
Another means that has been utilized to a very limited extent is the manufacture of mission furniture. The growing of such plants as lettuce during the fall, tomatoes, eggplants, etc., for transplanting in the spring has also proven a profitable line. To a limited extent students have been doing gardening for people in the city. Just here, however, comes the great difficulty of the majority of agricultural work. It is often hard to get the students' time, the weather and the soil conditions to fit into each other properly. The writer had an experience of this kind this spring, when he had to heel in plants waiting for the above conditions to coincide. The result was the majority of plants were lost. There is some demand for students to prune orchards and vineyards, but this demand is not very extensive.

We have this summer at one of the larger peach orchards in the State some 60 men who are earning a part of their expense money by packing peaches. A number of them expect to follow the peach industry north in the State and spend a good part of the summer packing.

All positions on the farm, such as feeding livestock, working in the dairy, in the poultry department, and to a limited extent in the demonstration field, that students find it possible to fill, are held for them.

But in addition to all of this, there is a demand for help that has not been met, especially from men who are just entering college and from men off the farm who have not got quite sufficient amount of money to take the one-year course and who are so situated that they must take the college work just at that time or drop it. After studying this situation pretty thoroughly, and from the writer's own experience while in college, the conclusion has been reached that the thing we need is some kind of work that can be done by the piece, where the student can do the work at times that will not interfere with class work, irrespective of the weather conditions.

JOHN R. FAIN,
Chairman Self-Help Committee.



PEACH PACKERS AT J. H. HALE'S ORCHARD, FORT VALLEY, GA.
Most of these young men are students earning money to help pay their way through college.

Oriskany Furnace Progressing.

Referring to the construction of his company's furnace near Lynchburg, Va., W. W. Taylor, general manager of the Oriskany Ore and Iron Corporation, writes to the MANUFACTURERS RECORD as follows:

"The Oriskany furnace is progressing very well. The fabricator is on the ground. One stove is completed; two stoves are more than half finished. The furnace shell has been erected and the draft stack is halfway up. The material for the fourth stove is on the ground, and the cast house steel is also here. We have the foundations ready for the blowing engines. These are now en route. Brand-new latest-type Fairbanks scales, 150-ton, steel and concrete, have been installed. Firebrick have been started, and masons will shortly start to set boiler brick and line stoves. We have most of the piers in for the steel trestles. These have been made and are ready for shipment. Have not ordered same in yet because of limited track room, but we are now remedying this, and expect to start work on trestles during August. Unless something unforeseen happens, we expect to be ready to blow in January 1. Work at the mines is progressing very well. Have built store and 15 houses, and have almost completed three miles standard-gauge track leading from Southern Railway to our washer near Pittsville."

Six Months' Pig-Iron Output

The American Iron and Steel Association has received from the manufacturers complete statistics of the production of pig-iron in the United States in the first half of 1912. The summaries follow:

Total Production.—The production of all kinds of pig-iron in the first half of 1912, including spiegeleisen, ferro-manganese, ferro-silicon, ferro-phosphorus, ferro-titanium, ferro-vanadium, etc., amounted to 14,072,274 gross tons, against 11,982,551 tons in the last half of 1911 and 11,666,996 tons in the first half. The following table gives the half-yearly production since 1909:

Gross tons.	1909.	1910.	1911.	1912.
1st half.	11,022,346	14,978,738	11,666,996	14,072,274
2d half.	14,773,125	12,324,829	11,982,551	.....
Total.	25,795,471	27,303,567	23,649,547	.....

The increase in production in the first half of 1912 as compared with the second half of 1911 was 2,089,723 tons, and as compared with the first half of 1911 it was 2,405,278 tons.

Classified Production.—The production of Bessemer and low-phosphorus pig-iron in the first half of 1912 was 5,572,355 tons, against 4,704,879 tons in the last half of 1911, an increase of 867,476 tons, and 4,704,424 tons in the first half of 1911. The production in the first half of 1912 includes 134,162 tons of low-phosphorus iron, against 155,815 tons in the last half of 1911 and 126,645 tons in the first half.

The production of basic pig-iron in the first half of 1912, not including charcoal of basic quality, was 5,405,376 tons, against 4,584,533 tons in the last half of 1911 and 3,935,487 tons in the first half.

The production of charcoal pig-iron in the first half of 1912 was 166,366 tons, against 117,541 tons in the last half of 1911 and 161,135 tons in the first half. A few tons of low-phosphorus pig-iron and ferro-alloys made with charcoal and electricity are included.

The production of spiegeleisen and ferro-manganese in the first half of 1912 was 93,161 tons, against 107,123 tons in the last half of 1911 and 77,595 tons in the first half. The production of spiegeleisen alone in the first half of 1912 was 36,145 tons, and of ferro-manganese alone the production was 57,016 tons.

Production by Fuels.—The production of bituminous coal and coke pig-iron in the first six months of 1912 amounted to 13,840,251 tons, as compared with 11,784,662 tons in the last half of 1911; the production of anthracite and coke mixed in the first half of 1912 was 64,999 tons, against 72,052 tons in the last half of 1911; of anthracite alone the production was 658 tons, against 8296 tons in the last half; the production of charcoal iron is given above. The bituminous figures include small quantities of ferro-alloys made with coke and electricity, coke and natural gas, etc.

Furnaces in Blast.—The whole number of furnaces in blast on June 30, 1912, was 266, against 231 on December 31, 1911, and 212 on June 30, 1911. The number of furnaces idle, including furnaces being rebuilt, on June 30, 1912, was 200, against 235 on December 31, 1911, and 201 on June 30, 1911.

During the first six months of 1912 the number of furnaces actually in blast during a part or the whole of the time was 302, against 275 in the last half of 1911 and 297 in the first half of that year.

Furnaces Building.—On June 30, 1912, there were 7 entirely new furnaces in course of construction, 6 of which will use mineral fuel and 1 will use charcoal, as follows: Pennsylvania, 2; Virginia, 1; Ohio, 1; Michigan, 1, and Minnesota, 2. In addition, 1 coke furnace in Virginia was partly erected, but work had been suspended for several years.

Furnaces Rebuilding.—On June 30, 1912, 5 old furnaces were being rebuilt, all mineral fuel, as follows: New York, 1; New Jersey, 1; Alabama, 2, and Ohio, 1.

New Furnaces.—During the first six months of 1912 eight entirely new furnaces were completed, namely, 2 in New York, 3 in Pennsylvania, 1 in Indiana and 2 in Illinois. All are coke furnaces. Their total annual capacity amounts to 1,039,500 tons. Down to June 30 five of these furnaces had been blown in.

Furnaces Abandoned.—In the first half of 1912 there were 7 furnaces abandoned, namely, 2 furnaces of the Poughkeepsie Iron Co. at Poughkeepsie, N. Y.; Hackettstown furnace of the Carteret Steel Co. at Hackettstown, N. J.; 2 Henry Clay furnaces of the Empire Steel & Iron Co. at Reading, Pa., and 2 furnaces of the Susquehanna Iron Co., one at Wrightsville and the other at Watts, Pa. These furnaces had an annual capacity of 215,000 tons. Six used anthracite coal and coke and one used coke.

The statistics of six months' production by States follow:

Total Production of Pig-Iron by States.

States.	Production—Gross tons. (Includes spiegeleisen, ferro-manganese, ferro-silicon, ferro-phosphorus, etc.) First half of 1911.	Second half of 1911.	First half of 1912.
Massachusetts.. Connecticut	6,424	3,225	8,793
New York.....	833,467	729,289	880,581
New Jersey.....	39,277	1,386	2,773
Pennsylvania.....	4,822,872	4,984,241	6,035,773
Maryland.....	131,531	124,285	107,027
Virginia.....	159,996	133,646	120,127
Georgia ..... Texas	1,200	.....	.....
Alabama.....	809,795	902,416	887,512
West Virginia....	130,455	161,017	129,155
Kentucky.....	46,493	48,709	24,017
Tennessee.....	165,722	158,926	145,076
Ohio.....	2,740,142	2,570,364	3,285,752
Illinois.....	882,807	1,225,195	1,304,227
Indiana ..... Michigan ..... Wisconsin ..... Minnesota ..... Missouri ..... Colorado ..... Oregon ..... Washington .... California	552,056 / 147,477 / 197,322	611,876 / 129,330 / 198,646	788,252 / 153,420 / 199,789
Total.....	11,666,996	11,982,551	14,072,274

Production of Bituminous Coal and Coke Pig-Iron.

New York.....	833,467	729,289	880,581
New Jersey.....	39,277	1,386	2,773
Pennsylvania.....	4,671,653	4,902,332	5,968,270
Maryland.....	130,901	124,285	106,377
Virginia..... Georgia ..... Texas	160,397	131,750	119,466
Alabama.....	788,895	880,759	871,155
West Virginia....	130,455	161,017	129,155
Kentucky.....	46,159	47,415	23,837
Tennessee.....	164,482	156,460	144,738
Ohio.....	2,739,517	2,569,087	3,285,511
Illinois.....	882,807	1,225,195	1,304,227
Indiana ..... Michigan ..... Wisconsin ..... Minnesota ..... Missouri ..... Colorado ..... Washington ...	542,193 / 226,431	624,044 / 221,643	808,258 / 195,903
Total.....	*11,356,634	*11,784,662	*13,840,251

*Includes ferro-alloys made with coke and electricity, coke and natural gas, etc.

Anthracite and Mixed Anthracite and Coke Pig-Iron.

New York..... New Jersey..... Pennsylvania...	149,227	80,348	65,657
Total.....	149,227	80,348	65,657

Production of Charcoal Pig-Iron by States.

Massachusetts.. Connecticut	6,424	3,225	8,793
New York.....	1,952	1,561	1,846
Pennsylvania.....	1,429	1,896	1,311
Maryland..... Virginia.....	20,900	11,657	16,357
Alabama.....	1,574	3,760	518
Georgia ..... Texas ..... Kentucky..... Tennessee.....	625	1,277	241
Ohio.....	98,232	62,652	107,927
Michigan.....	29,899	31,513	29,373
Wisconsin ..... Missouri ..... Oregon ..... California			
Total.....	*161,135	*117,541	*166,366

*Includes small quantities of pig iron and ferro-alloys made with charcoal and electricity.

Total Production of Pig-Iron According to Fuel Used.

Bituminous	11,356,634	11,784,662	13,840,251
Anthracite and anthracite and coke	149,227	80,348	65,657
Charcoal	161,135	117,541	166,366
Total.....	11,666,996	11,982,551	14,072,274

Five Years' Pig-Iron Output.

States—Gross tons.	Production—(Includes spiegeleisen, ferro-manganese, etc.) 1907.	1908.	1909.	1910.	1911.
Massachusetts ..... Connecticut	19,119	13,794	18,388	16,582	9,649
New York.....	1,659,752	1,019,495	1,733,675	1,938,407	1,562,756
New Jersey.....	373,189	225,372	294,474	264,781	40,663
Pennsylvania	11,348,549	6,987,191	10,918,824	11,272,323	9,807,973
Maryland.....	411,833	183,592	286,856	326,214	255,816
Virginia.....	478,771	320,458	394,134	444,976	293,642
Georgia ..... Texas	55,825	24,345	26,072	14,725	1,200
Alabama	1,686,474	1,397,014	1,763,617	1,939,147	1,712,211
West Virginia.....	291,066	65,551	228,282	174,661	291,472
Kentucky.....	127,946	45,096	86,371	100,509	95,202
Tennessee.....	393,106	290,826	333,845	397,569	324,648
Ohio.....	5,250,687	2,861,325	5,551,545	5,752,112	5,310,596
Illinois.....	2,457,768	1,691,944	2,467,156	2,675,646	2,108,092
Indiana ..... Michigan ..... Wisconsin ..... Minnesota ..... Missouri ..... Colorado ..... Washington ..... California	436,507 / 322,083 / 468,486	348,096 / 148,938 / 313,071	964,289 / 348,177 / 382,766	1,250,103 / 307,200 / 428,612	1,163,932 / 276,807 / 395,908
Total.....	25,781,361	15,936,018	25,795,471	27,303,567	23,649,547

In the following table are given the figures of the shipments in 1910 and 1911 of Lake Superior iron ore, Connellsville and Flat-Top coke, Cumberland coal and anthracite coal, the production in these years of iron and steel, the imports and exports of iron and steel, etc.:

Gross tons, except coke in net tons.	1910.	1911.
Shipments of L. S. iron ore.....	43,442,397	32,793,130
Production of iron ore...	56,889,734	.....
Shipments of Pennsylvania anthracite.....	64,905,786	69,954,239
Shipments of Cumberland coal.....	7,148,968	6,202,748
Shipments of Connellsville coke.....	18,689,722	16,334,174
Shipments of Pocahontas coke.....	2,335,932	1,323,387
Production of all pig-iron.....	27,303,567	23,649,547
Production of spiegel and ferro.....	*224,431	*184,718
Production of Bessemer steel.....	9,412,772	7,947,854
Production of O. H. steel.	16,504,509	15,598,659
Production of all steel..	26,094,919	23,676,106
Production of Bessemer rails.....	1,884,442	1,653,420
Production of O. H. rails.	1,751,359	1,676,923
Production of all rails..	3,636,031	2,822,790
Production of structural shapes.....	2,266,890	1,912,367
Production of wire rods.	2,241,830	2,450,453
Imports of iron ore.....	2,591,031	1,811,732
Exports of iron ore.....	748,875	768,386
Imports of iron and steel.....	$38,907,119	$28,995,600
Exports of iron and steel.....	$201,271,902	$249,656,411
Miles of new railroad....	3,918	3,293
Tonnage of steel vessels.	299,490	163,805

*Included in the total production of pig-iron.

SOUTH'S SULPHUR OUTPUT.

Its Dominating Importance in World Trade.

According to reports made to the Louisiana State Tax Commission by the Conservation Commission, the gross income last year of the company operating the sulphur mines in Calcasieu parish was $5,582,430, and it is claimed that the net revenue was $5,211,044, which would show operating and selling expenses of $371,000. While it has long been known that these sulphur mines, which produce nearly one-half the sulphur of the world, have been phenomenally successful, yielding almost fabulous profits, it seems to be questionable whether it is possible for the net returns to be as large as stated based on the gross receipts.

An interesting story in connection with the history of this company shows how many efforts to mine this sulphur had failed and how much money had been sunk in an apparently hopeless enterprise, until Frasch's system was introduced for pumping superheated water down into the sulphur beds, melting the sulphur in this way and pumping it up through adjacent wells in liquid form. This vast bed of sulphur is overlaid with some hundreds of feet of quicksand. All attempts to mine it had proved futile, and at last the company then owning the property met for the purpose of abandoning the undertaking and winding up its affairs. The story goes that Abram S. Hewitt at that meeting proposed to make one more effort by the adoption of the Frasch system, hoping to save what they were about to abandon. Herman Frasch had been a chemist in the employ of the Standard Oil Co., and for that company had achieved some remarkable things. It is doubtless due to his former connection with the Standard Oil Co. that the impression was created that the company operating the sulphur property was dominated by the Standard. But those interested in the company have always denied any connection whatever with the Standard Oil Co., and have insisted that the stockholders were in no way identified with Standard Oil operations. Mr. Frasch's system proved a great success, once more demonstrating how scientific skill sometimes solves problems which had long baffled the world.

This country had been dependent upon Sicily for its sulphur supply, and the Sicilian trade was dominated by an English syndicate. When Louisiana sulphur entered the markets of this country the Sicilian sulphur people, thinking to crush out a rival, undertook to cut prices. This was promptly met by Mr. Frasch establishing a sulphur refining plant in Marseilles to fight the European sulphur people on their own ground. A truce in the war was called by the European interests, and the Louisiana sulphur people practically drove foreign sulphur out of the American market and last year produced 256,000 tons. There is an increasing demand for sulphur in many manufacturing industries, and this country has been greatly benefited by the development of the Louisiana sulphur deposit, which has given us a large source of supply and enabled Louisiana sulphur to meet the needs of American consumers, and thus save us from dependence upon Italian producers.

On the coast of Texas another sulphur deposit, believed by some experts to be fully as important as that in Louisiana, is being developed, backed by some of the strongest capitalists of New York. A great sulphur mining plant is under construction, and it is expected that early this fall that property will enter the market as a sulphur producer on a large scale. It is believed by those interested that the consumption of sulphur is increasing with sufficient rapidity to make an ample market for all that it can produce. Thus the South, already dominating the sulphur trade of the world through the operations in Louisiana, will soon make a further advance in its sulphur trade if the operations in Texas fulfill the expectation, based on several years of investigation of those who with abundant capital are developing that property.

Secretary Fred A. Olds of the Chamber of Commerce of Raleigh, N. C., reports that several contractors of that city have notified him that men are wanted there to do concrete work.



RISING SKY LINE OF MUSKOGEE, OKLA., WHOSE POPULATION INCREASED BETWEEN 1900 AND 1910 FROM 4254 TO 25,278.

PETROLEUM BREAKS RECORD.

United States Production in 1911 Nearly Two-thirds of World's Output.

Petroleum production in the United States in 1911 surpassed its own record made in 1910 by an increase of nearly 11,000,000 barrels. In 1910 the output was 209,557,248 barrels. The total production of the world also surpassed all previous records, amounting to over 345,000,000 barrels, and of this the United States produced more than 63 per cent. The value of this enormous output of oil in the United States for 1911 was $134,044,752, the average price being 60.8 cents a barrel. Final figures have been compiled by David T. Day, the petroleum statistician of the United States Geological Survey, and have just been made public in a statement issued by the survey. The increase for the year was caused principally by the gain in California, which was by far the largest producer, its output being over 81,000,000 barrels. Another factor in the increase was the discovery of oil at Vinton, La., and the comparatively new Caddo field in Louisiana also grew in importance. A find of high-grade oil at Electra, in Northern Texas, was another notable event of the year.

Oklahoma, with a production of more than 56,000,000 barrels, extended its field well into Osage and Pawnee counties, and oil was discovered still farther west, in Kay county, considerably increasing the Mid-Continent yield. All these gains in the Mid-Continent field, however, were offset by the declines in Illinois and States farther east; in short, all fuel oils increased and refinery oils declined. Another feature, the influence of which is being felt in 1912, was the increase in transporting and refining capacity, which in spite of the general increased yield of the country led to a drain on stocks in the Mid-Continent field, and the result has been a general increase in the price of crude oils for refining.

With a gain in production of nearly 11,000,000 barrels, and with an increase in price at the end of the year, it is evident that an unusual condition in the oil market existed. The three commodities of general market value to be considered in connection with crude oils are gasoline, kerosene and residuals, the last suitable for fuels in the West and for lubricants and wax in the East. In the trade "naphtha" is the name generally applied to oils lighter than kerosene as distilled from crude oil, but by the public the term "gasoline" is applied to the light fraction of the oil suitable for internal-combustion engines. In fact, when crude naphtha is redistilled it is for the most part separated so as to yield gasoline and lighter or heavier kerosene. It is a matter of interest that the demand for gasoline has become so imperative that little or none is now allowed to lower the safety of lamp oils; the latter have therefore greatly improved in character.

In the production for 1911 California led off, with 81,134,391 barrels; Oklahoma took second place, with 56,069,637 barrels; Illinois third, with 31,317,038 barrels, and Louisiana was fourth, with 10,720,420 barrels. The prices of the different oils varied greatly, ranging from 47 cents to $1.32 a barrel. Thus while the production in Pennsylvania was only 8,248,158 barrels, its value was $10,894,074, whereas Louisiana, which produced 10,720,420 barrels, received for it only $5,668,814.

The greatest increases in production in 1911 were in California, 8,123,831 barrels; in Oklahoma, 4,040,919 barrels, and in Louisiana, 3,879,025 barrels. The principal decreases were in Illinois, 1,826,324 barrels, and in Ohio, 1,099,258 barrels.

The following table of total production shows the general increase in production for the United States since 1901:

	Barrels.
1901	63,389,194
1903	100,461,537
1905	134,717,580
1907	166,095,335
1909	183,170,874
1911	220,449,391

RAILROADS AND PEOPLE.

B. F. Yoakum on the Advantages of Co-operation.

Believing that peace must be established between the contending forces of capital and the public, Leon Westmoreland, who has just been nominated as a member of the Arkansas Legislature, has written to B. F. Yoakum, chairman of the Frisco lines, asking his opinion on the subject, and has received in reply an interesting letter from the railroad man.

Mr. Westmoreland is of the opinion that the remedy for existing conditions does not lie in legislation. He declares that he has watched commerce disturbed by turmoil and has watched at the same time the tide of prosperity in Arkansas going down. He would like, he says, to see his State set the example in bringing peace between capital and the people. This is part of what he wrote to Mr. Yoakum:

"The people rise in their might and throw broadsides of legislative cannister into your ranks, and you return it with 13-inch projectiles of judicial decisions, which rout them, but add to the animosity of the nation. The war is going on, with both factions at fault, and both sides are losing.

"We are holding caucuses instead of revivals. Each side holds its particular meetings to devise means to antagonize the other, when we should meet together to devise means for the best interests of all. I want to begin now to work out this idea, and I want you to help me. * * * I want to see the railroads running up every valley of our State, and I want to see the smoke of factories lining every hill. * * * I want to know what you want in the way of legislation and what you will do if you get it; not what you will do for me, but what you will do for the general public."

In his reply, written from New York, Mr. Yoakum points out that there is no doubt in the minds of thinking people that the "war" that is going on between the different factions is an economic waste of time and money upon both sides. Mr. Yoakum writes:

"The subject of your letter is the biggest one of the day, and can only be successfully handled through a better understanding by the people of the railroads and their methods of dealing with and co-operating with the different communities they serve. The inclosed bulletin issued by the Government shows 39 ways the railroads are aiding in agricultural extension and development of the country. These problems must be worked out in a friendly and harmonious manner and to the mutual benefit of all interests.

"Several years ago the Frisco Railroad officials inaugurated a systematic organization to find the best ways and means of overcoming what you refer to as useless warfare between the railroad and its patrons.

"In the beginning this was discouraging, as progress seemed slow, but our people felt that we were adopting the only safe plan for substantial benefit, and we have enlarged our work until now we all feel encouraged.

"The officers of our company are directing their attention to bringing around the most important consideration to the railroads, which is the friendship and confidence of the public we serve.

"In the first place, we must admit as a general principle mankind is selfish and in business there is little sentiment. As a rule, a man is your friend only as long as you can help him; therefore, the more you can help him, the more it is to his advantage to help you.

"The railroad business offers many opportunities for helping various communities it serves, and our road is trying to find ways to render such assistance wherever practicable. Our management is trying to devise the best method of reaching and convincing the people along our line that the railroad is an important part of their business, that it wishes to further the interest of every business and individual who is living or doing business on its rails, through co-operation, and that through such co-operation both the railroad and its patrons profit to the maximum extent.

"Our officers have injected into our operating methods a plan of dealing with our patrons through our local station agents, on the principle that the local agent shall be the direct representative of the company in the community in which he is located. He will settle all the ordinary claims, handle the requests for additional facilities, meet with the citizens as a representative of the railroad in the discussion of matters pertaining to the mutual interest of the railroad and the community in which he lives.

"We have already seen good results from this co-operation. We are also working on broader lines through our industrial department. The department under the company's industrial commissioner is particularly well equipped to reach the public, as it has no favors to ask of the people, but the organization is solely for the purpose of helping the people build up their respective communities and placing before them the actual facts in connection with questions affecting their mutual interests.

"In other words, the industrial department of the railroad is an important branch of the service, organized for the express purpose of working with and helping the public along the railroad. Its business is to find localities that have natural advantages and to aid these localities in finding persons and money to develop these advantages, which they must do through the co-operation of the people."

Mr. Yoakum is optimistic that the people of the country will come to see that his railroad, at least, is working for the development of business, the prosperity of the farmer, and will consider and give a fair hearing before unwise laws are enacted to hamper the railroads and the development of the country. — *Hartford (Ark.) Special to New York Times.*

One Georgia County

Editor Manufacturers Record:

Houston county, Georgia, has 23,609 inhabitants. It is bounded by Twiggs county with 10,736 inhabitants, Pulaski with 22,835, Dooley with 20,554, Macon with 15,016, Crawford with 8310 and Bibb with 56,646 inhabitants. It makes one think he is in the land of milk and honey to ride through the great peach orchards and farms of the county. Lands can be bought on the Ocmulgee River for from $9 to $15 an acre on time. These are not wild lands a thousand miles from nowhere, but right in the heart of a great State. There is not an acre of land in Houston county under cultivation upon which one cannot make two bales of cotton, now worth $112.50. And cotton is not considered the best paying crop. If any farmer will move from the hills of North Georgia to Houston county and work there as he does now to keep alive and pay his rent in North Georgia I would be tempted to guarantee that he would own his farm in five years, besides enjoying the luxury of life.

Clarkston, Ga. W. E. WIMPY.

"Natchez Under the Hill."

REJUVENATING A COUNTRY BY PACKING-HOUSES AND DIVERSIFICATION.

[Special Correspondence Manufacturers Record.]

Natchez, Miss., July 11.

About old Natchez, "Natchez under the Hill," there clings an aroma of the fragrant past, recalling not only the sweetest and best of Southern life in the days of the first half of the nineteenth century, but carrying one on and beyond the very first adventures made by the white settler in the valley of the Mississippi to the time when this pleasing spot was the seat of the sun-worshiping tribe of Indians from which the city took its name. There is now a modern city here, full of the life of commerce and industry, and yet with it all, in the gracious bearing of the people, and in the very atmosphere of the place, with its stately mansions and wide, tree-studded lawns, proclaiming a tranquillity and an aristocracy of gentle breeding found only in a community mellowed by time, there is a blending of the utilitarian present with the romantic past which gives a charm hardly equaled by any other city of the South.

The romance dates from its earliest history, for the Natchez Indians were different from all other tribes. They were agriculturists, manufacturers and astronomers, and lived under a strong government of the form of an oriental despotism. They had two languages, one for ordinary usage and the other for the nobles and the women. On their earthenware are figures and letters belonging to Greece. They were so fair in complexion, so noble in feature, form and bearing that they were apart from other tribes, and some historians have wondered if in origin they were not Phoenicians. The French, under Iberville, came up the Mississippi in 1700, and a settlement at Natchez, with its bluffs overlooking the great river, was shortly afterward made. Under the French the Indians were driven out, and afterward ruthlessly exterminated. It was during the French occupation that the scheme of John Law, historically known as the Mississippi bubble, arose, flourished and collapsed. Chateaubriand, during his exile, visited the Natchez country and found inspiration for "Attala," "Rene" and "The Natchez."

When the English won their victory over the French on the Plains of Abraham they acquired dominion over a large part of America, and in 1763 the Natchez country was turned over to the English by the French. English officers were granted large tracts of land in the Natchez country, and some of these officers of the Royal army came to live in Natchez. Also a number of settlers came in from the Atlantic coast and other places to the east. Many of the first citizens of Mississippi are descendants of these early settlers. In 1779 the Spaniards captured the Natchez country, which at that time was considered to be a part of West Florida. It remained a province of Spain till 1798, when Spanish sovereignty was relinquished and the American flag was raised. From 1798 to 1817 Mississippi was a territory of the United States, and during this time the seat of government centered at and near Natchez. Men prominent in the early affairs of Mississippi and Louisiana were citizens of Natchez, and dwelling in and around Natchez were some of the greatest characters of history. Joseph E. Davis lived and practiced law at Greenville, and his younger brother, Jefferson Davis, lived there with him for a time. "Some of the strongest of Mississippi sons made their homes in the counties of Adams and Jefferson during the territorial period," says a local historian. "They were molders of public sentiment and active participants in the organization of the new government."

Aaron Burr was arrested near here for conspiracy against the government, and a Natchez attorney, one of Mississippi's great Senators, was an attorney in the case of the State against Blennerhasset. The "Natchez and Nashville trail" was a noted road of early days. It was used by traders, who came down the river in flatboats and who went back overland after selling their merchandise. It was along this road the notorious Murrill operated to rob and kill. On a plantation near Natchez General Andrew Jackson was married.

The first steamboat reached Natchez in 1811. By 1822 shipping had so greatly increased that hundreds of boats loaded with produce from up-river States lined the landing for half a mile. In 1837-38 41,500 bales of cotton were shipped from Natchez. All the time the Mississippi River was the main avenue of commerce. Natchez was a conspicuous center of wealth, culture and business enterprise.

So much for the interesting and romantic past. Of course, the war hurt Natchez, and the decline of the river trade was another blow. The third blow was the prosaic, pestiferous boll-weevil. Over all these evils, however, Natchez has gone on to triumph, until now there is under way a readjustment to present conditions so broadly founded and so energetically entered into that Natchez is assured a prosperity that will endure and that will be greater than ever known. If all other evidences of this spirit and achievement were lacking, there would be ample assurances found in the recent establishment at Natchez of a meat-packing plant, which is already revolutionizing the agricultural thought and activities of this entire section.

This is an immediate outgrowth of the boll-weevil plague. Following the devastation of the war, Adams county, along with the cotton-raising sections of the South generally, went extensively into cotton growing, to the exclusion of other forms of agriculture. The war had demoralized or destroyed the plantations, and the flocks and herds of former days had almost disappeared. The price of cotton was high, and thus the habit was formed of raising cotton and buying foodstuffs from the North and West. And there was especial temptation in this when the farmers of Kansas would sometimes burn their corn for fuel rather than haul it to market for the few cents a bushel it would then command.

Adams county sometimes raised as high as 25,000 bales of cotton, or an average of half a bale to the acre, and Natchez handled one year as many as 85,000 bales. Cotton was indeed King, the life of the place and the foundation for prosperity, individual and widely diffused, as is evidenced by the fact that one firm of cotton brokers has made as much as $65,000 in a single year.

When the boll-weevil came, a few years ago, temporary ruin was imminent. Incomes were enormously diminished, as witness the fact that the same brokers above mentioned fell to $2500, or a loss in profits of $62,500 in a year. Business was depressed, planters were in straits and half the colored laboring population left the country. The cotton acreage was reduced almost 80 per cent., and the cotton mills at Natchez, which had been in operation for 20 years, were closed down.

From the earliest occupation by the British there had been diversification in agriculture in Adams county. Corn, wheat, rye, barley, rice, potatoes, cotton, flax, tobacco and indigo were all cultivated to some extent, and cattle, hogs, sheep and a fine breed of horses were raised. Before the war the region supplied itself with corn, nearly every plantation raising enough for its own use.

With the devastation of the boll-weevil it was realized that the time had now come to return to former principles and "live at home." It is inspiring and instructive to note how whole-heartedly the citizenship adopted the new determination. Local business men subscribed $200,000 to start a packing plant for the purpose of helping the country. It began operations January 1, 1911, with a capacity of 300 hogs and 50 head of cattle daily. Even the mere announcement of the purpose of those who promoted the enterprise was sufficient to immediately stimulate the raising of hogs and cattle, and the necessity for increasing the capacity was so apparent that before the end of the year $100,000 was asked for extensions. The new subscription was also promptly taken locally.

More and better grades of cattle and hogs are being raised all over this section, for which the farmers are getting good returns in cash. The supply of stock for the packing plant comes largely from the country on both sides of the river, in Mississippi and Louisiana, and to a considerable extent throughout a large part of the boll-weevil belt. There is a fine grazing country between Baton Rouge and Natchez, which contributes a growing proportion of the supply. With the expansion of the business it is expected that its influence will be felt over an ever-widening area.

Collaterally, with the development of stock raising, there is a growing interest being taken in dairying. Establishments are going into an association for the scientific development of the dairy industry, and in this movement there is seen the beginning of a most important and beneficial addition to the business and industrial life of the city and section.

Another incidental benefit already apparent is the establishment of a grist mill at Natchez. There has been no grist mill heretofore, for the simple reason that there was no corn to grind. Hereafter there is going to be lots of corn raised around Natchez and all over Mississippi, which led all the States in the Union in the number of corn clubs of boys competing in a recent National Corn Exposition.

The diversification idea is thoroughly innoculating the people. Last year $100,000 worth of cowpeas were shipped out of the county. Formerly great quantities were bought and none shipped out. A 4000-acre plantation formerly bought $20,000 worth of feed a year. It hasn't bought $1000 worth in three years, raising now practically all that is required. Oats are being raised here again, after a lapse of half a century.

The rice industry is being developed very extensively, and peanut raising, for hay, stock feed and for oil, is a recent industry, a mill at Gloucester having been established within the past two years. Sugar-cane for syrup, made locally and now shipped out at the rate of 50,000 quart cans a year, is also a new industry. Pecans are now found worth giving attention to, $50,000 worth of the last crop having been shipped from Natchez.

A very considerable interest has been aroused in truck farming, and a canning factory has been started to assist in developing the industry by providing a home market for tomatoes, peas, beans, etc. A large acreage has been planted in potatoes, early cabbages do well here, and those who have engaged in trucking are generally very well satisfied with results so far and are proposing to extend their operations.

A great many crops not now raised here could be grown to excellent advantage, such as onions, lettuce, asparagus, melons, sweet potatoes, etc. In a recent soil survey by the United States Government it was demonstrated that there are large areas in Adams county having a soil identical with that at Durant, Miss., where strawberries are successfully and extensively grown. In fact, the report of this soil survey is most excellent campaign literature for impressing the striking advantages Adams county possesses to the farmer, the stock raiser and the trucker. With adaptability of the soil to many truck crops; to the growing of cowpeas, soja beans, alfalfa, peanuts, rape, sorghum, clover and a variety of grasses, making the raising of hogs and cattle easy and profitable; with the long growing season and excellent transportation facilities, it is pointed out that a great diversified development is certain to occur.

Every encouragement is being extended to the truck grower and to every other enterprise by the Yazoo & Mississippi Valley branch of the Illinois Central Railroad, by providing switches and the best facilities for handling the product of the field and the factory.

The business men of Natchez, through their Chamber of Commerce and in their individual capacity, are working to secure a well-rounded industrial development here, and are encouraging the location of factories and working to induce immigration. Among recent industries is a broom factory, which utilizes all the broom corn now raised in the vicinity. Such plants as a wagon factory, axe-handle factory, box factory, furniture factory, mattress factory and tannery are mentioned as among those best adapted to this section, on account of the proximity of raw materials. As cotton will always be grown in the South, in spite of the boll-weevil, and as the experience of other communities has been that methods for largely overcoming the destructiveness of the Mexican pest have been devised, there should be a revival of the cotton industry in Natchez and Adams county. Already there is discussion of the advisability of reopening the cotton mills with a modern equipment of power looms.

But Adams county will never return to the big plantation, one-crop system. Every move is in the direction of cutting up the big plantations and locating settlers on small tracts. It is declared that a family can make an independent living on 10 acres most anywhere in the county. To assist in the work of bringing in settlers to ocupy these lands a development company, composed of local people, has been organized with an authorized capital of $500,000. The company will either buy or list lands for colonization purposes, and will undertake to give authentic information as to locations, values, special adaptability, transportation facilities, etc.

Natchez is already feeling the effects of the vigorous campaign she has been making. The adaptability to changing conditions is strikingly demonstrated in the fact that the bank deposits are now greater than ever before in the history of Natchez. The stride of the new forward march has been struck, and all eyes are turned in confident expectancy toward a busy, thriving city of many times the present population of 15,000, the center

of commerce and industry of a well-populated, prosperous region.

Natchez is almost precisely halfway between Memphis and New Orleans, being 217 miles from Memphis and 214 from New Orleans. It has excellent transportation facilities through a branch of the Yazoo & Mississippi Valley road running from Natchez to Jackson, Miss., where it connects with the main line of the Illinois Central, and connecting at Harriston with the main line of the Yazoo & Mississippi Valley road, which runs between New Orleans and Memphis. The Mississippi Central runs from Natchez to Hattiesburg, where it connects with the Queen & Crescent road. Other lines furnish service through connections with main lines and through ferriage between Natchez and Vidalia, where valley lines in Louisiana are reached.

Though the glories of the old river traffic have departed, the river is still a most important asset of Natchez. Ocean-going vessels can land at her wharfs, as witness the recent visit of the United States battleship Mississippi. A number of river boats ply between Natchez and neighboring river ports, engaging in profitable and advantageous traffic on their own account, and the river forever gives Natchez an advantage in railway freight rates that no interior city can take away.

ALBERT PHENIS.

NEARLY 500,000,000 TONS.

Coal Production in 1911 Close to the Great Outut in 1910.

The United States has become a half-billion-ton coal country. During the last two years the total production has averaged just a trifle short of the 500,000,000 mark, exceeding that figure in 1910 and almost reaching it in 1911. Of the total the South produced 117,000,000 tons. It is considered probable that in the future it will be a bad year whose production falls far short of this quantity. The final figures of production have been compiled by Edward W. Parker, the Government coal statistician, and are discussed by him in a statement just issued by the United States Geological Survey. They show a total production in 1911 of 496,188,308 short tons, valued at the mines at $625,910,113. Of this production, Pennsylvania anthracite amounted to 90,464,067 short tons, valued at $174,952,415, and bituminous coal and lignite to 405,724,241 tons, valued at $450,957,698. The decrease in production in 1911 was 5,408,070 tons, or a little over 1 per cent., in quantity, and $3,646,908, or a little over 0.5 per cent., in value. The decrease is attributed by Mr. Parker wholly to the depressed condition of the iron and steel trade in 1911, which was reflected in the decreased production of coke. The three leading coke-producing States alone showed an aggregate decrease of nearly 9,000,000 short tons of coal.

The decrease in the production of bituminous coal compared with 1910 was 11,386,901 tons, but this loss was largely made up by the increase in the production of anthracite, which was 5,978,831 short tons greater than in 1910.

Considering the marked decrease in the production and consumption of coke and the fact that large quantities of coal in addition to that used for coke-making are consumed in the iron trade, the comparatively small net decrease of less than 6,000,000 tons in coal production must be taken as an indication that other manufacturing industries, the transportation companies and the country generally were prosperous. The average price for bituminous coal was one cent a ton lower in 1911 than in 1910, and that of anthracite was three cents higher.

The total number of men employed in the coal mines of the United States in 1911 was 722,322, of which 172,585 worked in the anthracite mines of Pennsylvania. The average number of days worked in the anthracite mines was 246 and in the other mines 211. The average production per man was 3½ tons a day in the bituminous and lignite mines and 2.13 tons a day in the anthracite. The time lost by strikes in 1911 was insignificant.

The production of coal by States in 1910 and 1911 is shown in the following table:

Quantity and Value of Coal Produced in the United States, 1910 and 1911, in Short Tons.

State or Territory.	1910 Quantity.	1910 Value.
Alabama	16,111,462	$20,236,853
Arkansas	1,905,958	2,979,213
California and Alaska	12,164	33,336
Colorado	11,973,736	17,026,934
Georgia	177,245	259,122
Idaho	4,448	17,426
Illinois	45,900,246	52,405,897
Indiana	18,389,815	20,813,659
Iowa	7,928,120	13,903,913
Kansas	4,921,451	7,914,709
Kentucky	14,623,319	14,405,887
Maryland	5,217,125	5,835,058
Michigan	1,534,967	2,930,771
Missouri	2,982,433	5,328,285
Montana	2,920,970	5,329,322
New Mexico	3,508,321	4,877,151
North Dakota	399,041	595,139
Ohio	34,209,668	35,932,288
Oklahoma	2,646,226	5,867,947
Oregon	67,533	235,229
Pennsylvania bituminous	150,521,526	153,029,510
Tennessee	7,121,380	7,925,350
Texas	1,892,176	3,160,965
Utah	2,517,809	4,224,556
Virginia	6,507,997	5,877,486
Washington	3,911,899	9,764,465
West Virginia	61,671,019	56,665,061
Wyoming	7,533,088	11,706,187
Total bituminous	417,111,142	$469,281,719
Pennsylvania anthracite	84,485,236	160,275,302
Grand total	501,596,378	$629,557,021

State or Territory.	1911 Quantity.	1911 Value.
Alabama	15,021,421	$19,079,949
Arkansas	2,106,789	3,396,849
California and Alaska	11,647	13,297
Colorado	10,157,383	14,747,764
Georgia	165,330	246,448
Idaho	1,821	4,872
Illinois	53,679,118	59,503,278
Indiana	14,201,355	15,326,808
Iowa	7,331,648	12,663,507
Kansas	6,254,228	9,645,572
Kentucky	13,706,839	13,617,217
Maryland	4,685,795	5,197,066
Michigan	1,476,074	2,633,803
Missouri	3,760,607	6,431,066
Montana	2,976,358	5,342,168
New Mexico	3,148,158	4,525,925
North Dakota	502,628	720,489
Ohio	30,759,986	31,810,123
Oklahoma	3,074,242	6,291,494
Oregon	46,661	108,033
Pennsylvania bituminous	144,721,303	146,311,930
Tennessee	6,433,156	7,209,734
Texas	1,974,593	3,273,288
Utah	2,513,175	4,248,666
Virginia	6,864,667	6,254,804
Washington	3,572,815	8,174,170
West Virginia	59,831,580	53,670,515
Wyoming	6,744,864	10,508,863
Total bituminous	405,724,241	$450,957,698
Pennsylvania anthracite	90,464,067	174,952,415
Grand total	496,188,308	$625,910,113

Birmingham Iron Market.

[Special Cor. Manufacturers Record.]

Birmingham, Ala., July 27.

The movement of pig-iron from local furnace yards continues at a rate very satisfactory to the producing interests, but the tonnage that has been added to order books within the past few weeks, either for prompt shipment or delivery further advanced, is very small when compared with the probable make. The lack of interest on the part of the trade is attributed to the liberal provision that has already been made for advanced requirements, yet but a small tonnage comparatively has actually been booked for delivery after the third quarter. With all order books comfortably filled for the remainder of the third quarter, and in some cases for a significant portion of the fourth quarter make, the market is firm, notwithstanding the lack of trading. As to whether or not a concession from the established basis of $12 for No. 2 foundry would increase sales, there is some question. It is noted that but few round tonnages have been submitted for some two weeks past, and that the demand for spot shipment has been very light in that time, and came from a very wide range of territory. The sales made in the week just ended, and which consisted of carloads and lots of less than 200 tons each, probably aggregate less than 1000 tons. For this tonnage mentioned the $12 basis was fully maintained, and for the low grades that were involved in transactions premiums were paid in the majority of cases. The largest single offering in the week was a lot of 800 tons of analysis iron, which is still pending. The offerings by producers have in certain cases been limited to those grades that are on yards, which practically eliminates three of the largest interests from the market. Considerable resale iron is being offered by the merchant interests, but at prices in line with those of the furnace companies. In fact, there is no disposition to shade the $12 basis in any quarter, but it has been rumored that round tonnages at slight concessions would be acceptable for certain brands.

As is indicated by the continued steady movement from furnace yards, the general foundry trade is now in a very healthy condition. Selling prices for practically all of the finished foundry products have been advanced more or less, and the outlook is favorable to an increase in the volume of business. These conditions are, of course, reflected more or less in the condition of the pig-iron market, and have a tendency to govern quotations on future deliveries, as well as adjust the rate of production. It will be noted that no effort whatever has been made by the furnace companies to book tonnage for delivery after the first of the year, and that until just recently last-quarter shipments were offered with reluctance. The production for this month will show a substantial increase over that of June, and it is likely that this increase has not been fully taken care of by the daily shipments. Yet no producing capacity has so far been put in operation in anticipation of the demand, and the basis for present asking prices cannot be considered other than firm.

The output of basic iron is still being taken care of by the local mills. The production is represented by the capacity in operation at the Ensley and Alabama City plants, and the stock on yards at those plants is limited to such an extent that the operation will hardly be changed.

The charcoal-coal producing capacity is still well taken care of, but without an advance in prices equivalent to the advance being asked for coke iron.

The several grades represented in this market are quoted as below per gross ton f. o. b. cars Birmingham furnaces, which prices apply to spot deliveries or shipments over the remainder of the year, viz.: No. 1 foundry, $12.50; No. 2 foundry, $12; No. 3 foundry, $11 to $11.50; gray forge, $10.50 to $11; standard basic, $11.50 to $12; charcoal iron, $22.50 to $23.

An addition of some 1500 tons of water pipe has just been made to local order books, which consists of the requirements at Davenport, La.; Salt Lake City, Utah; Long Beach, Cal., and at Mexico, Mo. Shipments against contracts previously entered are about equal to the output, and producers are apparently satisfied with existing conditions, although the tonnage under consideration for future letting is at this time rather small. It is understood that a local concern will soon establish a branch plant at Lynchburg, Va., but definite information in that regard is not given out. The labor troubles at local operations, of which mention has previously, been made, were of short duration, and did not affect the production to any appreciable extent. An advance in quotations is not authorized, but higher prices than now prevail are expected as a result of the increased cost of raw material, as well as the increase in the cost of labor that has just become effective. Class "B," or water pipe, is quotable per net ton f. o. b. cars here as follows, viz.: 4-inch, $23.50; 6-inch and up, $21.50, with $1 per ton extra for class "A," or gas pipe. Special fittings are still quotable at from $45 to $50 per net ton at foundry.

More or less complaint is still made by all local concerns of the inability to deliver the several finished products at the rate demanded, and the producing capacity is being operated under a strain. No particularly attractive sales were made in the week, but the volume of specifications received was very satisfactory. It has been necessary to operate the Bessemer mill on double turn, and where practicable to add capacity at the smaller mills. The demand for light steel rails is still very strong, with a basis of $1.35 per hundredweight quotable at Birmingham for 12-pound to 30-pound sections. A small tonnage of 65-pound sections is now pending for export.

The old-material market is quiet, due largely to the heavy forwardings of steel and wrought grades within the past few weeks.

Dealers' asking prices for those grades mentioned are still weak comparatively, but for light cast and machinery prices have a tendency to advance. Recent additions to the accumulation of all grades on yards show some increase in the available tonnage, and negotiations for an additional round lot of miscellaneous scrap will probably be closed early in next week. Asking prices are about the same as last reported. We quote as follows per gross ton f. o. b. cars here, viz.:

Old iron axles, $15 to $16.
Old steel axles, $12 to $14.
Old iron rails, $12.50 to $13.
No. 1 railroad wrought, $12 to $12.50.
No. 2 railroad wrought, $11 to $12.
No. 1 country, $9 to $9.50.
No. 2 country, $7 to $7.50.
No. 1 machinery, $9.50 to $10.50.
No. 1 steel, $10 to $11.
Tram car wheels, $8.50 to $9.
Standard car wheels, $11 to $12.
Light cast and stove plate, $8 to $8.50.

The advance made some time since in the price for foundry coke is being maintained. Furnace coke is being required in larger quantities by reason of the increase in the active furnace capacity; but, as practically the entire requirement is supplied from the operations of the several furnace companies, prices have not fluctuated.

The output of steam coal has been adjusted to the consumption, and prices have strengthened accordingly. In this connection developments in the proposal to barge the product from the Warrior field to New Orleans are being watched with considerable interest. With the proposed arrangement it is quite likely that Alabama coal would displace the Pittsburg product at Gulf ports to a very appreciable extent, although the large facilities now in use for handling this last will, of course, have to be taken into consideration. Within the week an arrangement was made by a local concern for the storing of large quantities of steam and domestic coal for use in New Orleans proper, which is to facilitate the extension of operations at certain properties as originally outlined.

Delany & Locke of Mobile, Ala., are circulating a booklet illustrating the advantages of that port.

Lower Rio Grande Valley.

IMPORTANT DEVELOPMENTS TO FOLLOW INTERURBAN RAILROAD EXTENSIONS.

[Special Correspondence Manufacturers Record.]

San Benito, Tex., July 16.

By far the most significant and largest single piece of development to be made in Lower Rio Grande Valley since that section was first opened to settlement and its agricultural and irrigation possibilities brought out by the building of the Gulf Coast Line down the coast to Brownsville eight years ago is promised in the extensions to be made by the San Benito & Rio Grande Valley Interurban Railroad over the entire valley as set out in the papers of incorporation filed by that company at the capital several days ago.

A strong aggregation of Texas capitalists are named in the charter of the new road as incorporators, including S. A. Robertson, Samuel Spears, W. G. B. Morrison, L. O'Bryan of San Benito and D. C. Dunn, J. S. Rice, J. W. Link, A. M. Levy, R. H. Kelley and R. C. Fullbright of Houston. The capitalization of the new company is $500,000. In the neighborhood of 260 miles of standard-gauge railroad, all in the Lower Rio Grande Valley, is called for, including the portion already constructed, amounting to approximately 65 miles. The new road will follow a general course southwest from San Benito to the Rio Grande River, thence up the river to Roma, in Starr county, a line to take off this course and run in a northeasterly direction from Hidalgo, Hidalgo county, through Mission to Monte Christo. From this line at the town of Alton, on the lands under the Mission irrigation system, a line will be taken east bearing a little south, through Combes and crossing the Arroyo Colorado near Rio Hondo to Hull Junction. In addition to the line from San Benito to the Rio Grande and up the Rio Grande to Santa Maria, which is already in operation, the line is extended through San Benito north through Rio Hundo to Hull, this division also being in operation at this time. A line is called for east from San Benito to Point Isabel, on the coast, and branching off of this line six miles east of San Benito a line will be taken in a northerly direction to Anita, on the Arroyo Colorado. Besides the line from San Benito to the Rio Grande, already constructed, a loop back to San Benito, taking in a territory several miles down the river, is also now in operation, and an extension of this line down the river to Villa Nueva is provided for, and from the line from Alton to Hull Junction a branch will be taken to Mestenas, in Hidalgo county.

The new system will completely gridiron the Lower Rio Grande Valley, and serve every portion of it with the efficient transportation facilities which have been enjoyed by the farmers and shippers on the lands tributary to the San Benito irrigation proposition, where the 65 miles has been in operation for something over a year. This marks a new era in the progress of this most famous agricultural section in Texas, the Lower Rio Grande Valley, and means an immediate increase in the development of lands and irrigation projects which has been going on with unparalleled rapidity during the past eight years. It is a binding together with bands of steel of half million acres of some of the richest land in America and the bringing together of the different sections of the valley into a closer union and more united effort in the upbuilding of the whole valley.

While styled an interurban railroad, the new road will also handle freight with standard steam equipment and care for the heavy tonnage created by the intensive farming which is going on here 12 months in the year. Passenger and express traffic will be handled by gasoline motor and gasoline-electric motor cars. Four of these cars, with trailers, are already in service, and four more of the gasoline-eelctric type with a seating capacity of 70 passengers and large express compartment have been ordered for immediate use. The new type of car will be of sufficient size and power to draw from six to eight freight cars, and is somewhat of an innovation in the handling of freight. However, this type of motive power is particularly suited to the needs of sugar-cane and garden truck shippers, and will be of service in picking up en route and handling promptly the cars as they are loaded at the various sidings. Three larger locomotives in addition to those now used are also to be placed in service shortly.

The following officers in the new company have been named: S. A. Robertson, president; J. W. Link, first vice-president; Samuel Spears, second vice-president; L. O'Bryan, secretary, and J. S. Rice, treasurer. Construction work is actively in progress in numerous places on the new line, and Mr. Robertson, the president, states the gaps will be closed up as rapidly as possible and the entire system completed with the utmost dispatch. The line from Hidalgo through Mission to Monte Christo, he stated, he expected to have in operation by September 1 of this year, the line from San Benito to Point Isabel by January 1 next, from Santa Maria, the present terminus of the completed portion of the road, up the river from San Benito to Hidalgo by January 1, and thence to Roma, probably by April 1 of next year. The construction of the balance of the road will be hurried in a similar manner.

The St. Louis, Brownsville & Mexico, the Gulf Coast Line, which built into the valley eight years ago, now has in operation on the main line and what is known as the Sam Fordyce branch, in the valley itself, approximately 88 miles of road, while the Rio Grande Railroad from Brownsville to Point Isabel operates 22 miles of narrow gauge. This mileage, with extensions under way on the new San Benito and Rio Grande Valley Railroad, will give the Lower Rio Grande Valley something over 350 miles of road.

The area of the Lower Rio Grande Valley proper comprises something like 500,000 acres, and is traversed by some 20 irrigation canals, large and small, upon which millions of dollars have already been expended. Scarcely one-fourth of the irrigable acreage of the valley is now in cultivation, but the tonnage created from the cultivated acreage is enormous. The valley is a splendid sugar-cane region, cotton is raised extensively, and it is known as the principal producer of winter garden stuff for Central State markets. On the tract of 80,000 acres under the San Benito irrigation canal approximately 25,000 is in cultivation. From this acreage, about 10,000 of which was devoted to cotton, 7000 bales were shipped last year; from the 2000 devoted to winter truck, over 500 cars went to Northern markets, while about 2000 cars of sugar-cane were produced on the acreage planted to that crop and handled over the San Benito & Rio Grande Valley, thousands of acres were devoted to feedstuff, hay, corn, alfalfa, etc., and to dairying and hog raising, of the products of which no shipping record is available. This is for San Benito alone, 80,000 acres of the 500,000, and quite as good records are shown at Mission, Donna, Mercedes, Brownsville and other points where development is fairly started, while many brand-new towns contributed some to the production, and will increase their output as the development increases. Seven sugar factories are located in various parts of the valley, and more will be built as the sugar industry develops. The new road, which crosses nearly all of the irrigation systems in the valley, will bring about the establishment of many new towns and be of great value to the farmers in the district in cutting down their haul by team and bettering their transportation facilities. On the San Benito tract, where the road has been in operation for some time, practically every farm is within two miles of rail transportation. Switches have been run out into the larger plantations and established at points convenient for the small farmer, and cars of cane, garden stuff or other farm produce may be loaded in or near the field where it is grown and billed through to market, while farm implements, supplies, etc., are carried to the farmer in the same convenient manner. The motor passenger cars which are operated on convenient interurban schedule are commodious and well constructed, and stop on flag every mile. Neat little frame waiting stations have been erected at these stops, while in the towns en route, where stop is made on schedule, the ordinary type of frame depot is found, with double waiting-room, baggage and agents' room. In addition to the heavy freight, express and ordinary interurban passengers which the new road will handle, on account of the fact that it will provide a direct line which will place the entire valley in easy access of Point Isabel on the Gulf, a heavy tourist passenger business to this resort town is anticipated and the establishment of tourist hotels at San Benito and Point Isabel called for.

The new road as already constructed has been directly responsible for the building of three new towns on the 80,000 acres under the San Benito irrigation canal and renewed life in the old-established towns it touches. When road was completed north of San Benito to Hull Junction, a little over a year ago, the townsite of Rio Hondo, seven miles north of San Benito on the Arroyo Colorado, was placed on the map with a sign post, a railroad station and a general store. In a year it has grown to be a town of 300 people, directly due to the building of this road, and has installed such modern conveniences as a town electric-lighting plant and waterworks, improved its streets and sidewalks, built a large tourist hotel, bathing pavilion and given promise of making a substantial resort town of considerable size in a few years.

La Paloma and Los Indios townsites, on the division to the south of San Benito, have been laid out during the past year, and are experiencing the same development as did Rio Hondo on the north. Though considerably young, they have the natural support necessary to make important towns in time. The town of Anita, farther out toward the coast on the Arroyo Colorado from Rio Hondo, is the latest town to be established on this line. It is proposed to build a ready-made resort town here and open it up as soon as the extension of the railroad reaches the townsite. Carricitos and Santa Maria, on the constructed portion of the road south of San Benito, have been given impetus by the building of this road, and Santa Maria, an ancient town grown up around one of the Government's old forts abandoned many years ago, is just now experiencing an awakening. A good irrigation canal serving in the neighborhood of 5000 acres has been in operation at this place for a number of years, and splendid results have been obtained from the land along its course, but owing to the fact that it had no convenient transportation it has not developed apace with the other sections of the valley. Now that this want is provided, the town itself is growing, more land is going into cultivation and the foundation being laid for an important town.

The road as already built has been a large factor in the development of the town of San Benito, which has forged ahead during the past two years with unparalleled rapidity. The natural development of the lands tributary to this town added much to the volume of trade here, and the interurban served as a dragnet to gather in the trade from the outlying district, which before the line was built went elsewhere. Now come extensions throughout the entire Lower Rio Grande Valley, which will make the line in the valley more than 250 miles long. There is every reason to believe that this will result in the same development throughout the territory it traverses as has been experienced at San Benito, where the road has been operated, and where its effects can be seen.

The towns of Combes, Alton and Monte Christo may be expected to experience material progress as a result of the building of this road, and the providing of transportation facilities. The town of Alton, under the guiding hand of John Conway, one of the valley's most progressive developers, is already making big strides, and if the example Conway has set at Mission is any criterion, it may be expected to grow rapidly and substantially. Combes, lying at the point of the crossing of the main line of the St. L., B. & M., and surrounded by very fertile land, has an advantage in the point of location which will not be overlooked by the developers of the valley. Mission, already a town of over 3000 people, and known as the livest of the up-valley towns, will be benefited by the line as much as San Benito has been. Mission is beautifully located on high ground which overlooks the fertile valley and green fields below. Wonderful development has been going on there. During the shipping season just past hundreds of carloads of onions, cabbage and other vegetables went out to Northern markets from Mission. It is a modern little city, and is building rapidly.

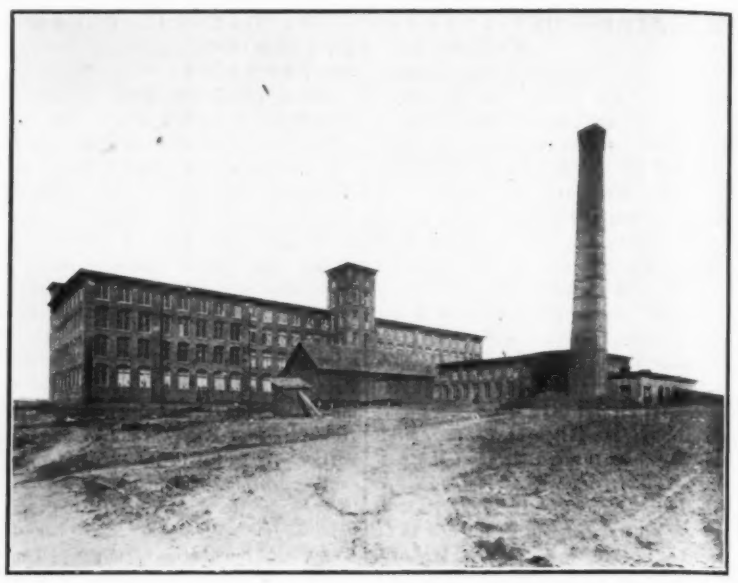
When the fact that practicaly all the development in the Lower Rio Grande Valley has been during the past eight years, since the Gulf Coast Line afforded an entry by rail into this section, and that 90 per cent. of the development has been made during the past four years, the full significance of the building of this new road over the valley can be grasped. Thousands of acres which would have lain undeveloped for years on account of inadequate transportation will now come under the hand of the developer. Towns will rise up along this new road from the ash heaps of the clearing fires as they have done along the older road in places where without the new road there would have been no excuse whatever for the building of the new towns. When one considers the development which has taken place during the past four years along the 110 miles of railroad which traversed the valley, and the fact that now this mileage will be trebled with the building of an entirely new road, it does not take a very sanguine turn of mind to predict an era of big development in the Valley of the Lower Rio Grande, sweeping over the entire valley as this new road extends.

H. V. Watts.

TWO INDUSTRIES AT DENISON, TEXAS.



PEANUT FACTORY.



COTTON MILL.

UNION OF PUBLIC UTILITIES.

Scope of the Southwestern Electrical and Gas Association.

[Special Cor. Manufacturers Record.]

Dallas, Tex., July 27.

The Southwestern Electrical and Gas Association was formed in its present shape eight years ago by the combination of the electrical, gas and water associations of the Southwest. Its membership consists of street and interurban railways, electric-light and power stations, gas plants and water-works, and in territory it includes the whole State of Texas and also certain portions of the abutting States.

This organization previously followed the road of most all the sectional organizations of public utilities by having a convention once a year and publishing a volume of proceedings. This year this association has taken a new step, in that it has established a permanent office with well-paid secretary, H. S. Cooper, who devotes his whole time to the affairs of the association and its members.

To more thickly settled sections in the East the variety of the membership and the tremendous extent of territory that it covers might seem to indicate that this organization was rather a cumbersome one, but its experience during the past eight years has been entirely different. There are so many common interests among the various kinds of public utilities represented by the association that it has found, in the past, no difficulty in keeping up the interests of all members in the association and in increasing its membership, power and influence, and the establishment of this permanent office, devoted entirely to the association and its membership, is acting like the hub of a wheel, all the spokes radiating toward and centering in it. The office is already finding that its members propose to take advantage of it and use it, as inquiries of every character for information, for assistance and for advice are coming in to it.

The Southwest is peculiar in the fact that while there are very large public service corporations and aggregations of corporations under parent or holding companies, there are also a tremendous number of small companies scattered throughout the minor and rapidly-growing cities and towns of the Southwest. These little plants are rapidly increasing in number, owing to the growth of the villages into towns and the towns into cities. It is one of the special purposes of the association to make them a united body working for a common end of benefit to public utilities.

The importance of this association is indicated in the fact that the gross earnings of the street and electric railways, electric light and power central stations and gas plants in Texas in 1911 was about $14,000,000, and the capital represented in these utilities is over $100,000,000, a very large majority of which is represented by this association.

The office of the association is open for any and all information with reference to the classes of public utilities represented in its membership.

For North Carolina Apples.

Chamber of Commerce,

Raleigh, N. C., July 29.

Editor Manufacturers Record:

Weather Observer Lee Denson, Professor Cox of the Weather Bureau and State Horticulturist Hutt left here today to inspect the fruit-growing area in the Piedmont and mountain regions of North Carolina. There are already established 10 orchard stations near Tryon, Waynesville, Blantyre (one of the State test farms), Asheville, Gorge, Globe, Blowing Rock, Transon, North Wilkesboro and Mt. Airy. The Weather Bureau, acting in close connection with the United States Department of Agriculture and the State Department of Agriculture, is looking over the territory already covered and will establish new stations, so as to embrace every important section. It is felt by the United States officials and by those of the State that this mountain and Piedmont region is to be made one of the greatest apple-growing sections on earth. There will soon be a score of stations, and from these accurate data will be obtained.

FRED A. OLDS, Secretary.

Building at Austin.

Business League,

Austin, Tex., July 25.

Editor Manufacturers Record:

Work on the addition to the Austin high school, which is to cost $90,000, will begin on the first of August.

The contract for the new postoffice, to cost $178,000, has been let, and work will begin early next month; it is expected that it will finally cost approximately $250,000. An effort is being made to have Texas granite used in the construction of the building rather than foreign stone.

Work is actively going on at Austin's $1,750,000 dam. At least 150 men are at work daily, and this amount will probably be doubled by the first of August. Street paving continues every day, and block after block is being laid.

WILL L. VINING, Secretary.

Activities at Guthrie.

Chamber of Commerce,

Guthrie, Okla., July 25.

Editor Manufacturers Record:

All of the machinery for the rolling mill to be started here has been shipped from Charleston, W. Va., and material is on the ground for the buildings.

The city on July 18 voted $25,000 in bonds, the proceeds to be used in connection with $125,000 furnished by the Santa Fe Railroad Co. for the building of a viaduct and bridge across the Santa Fe track and the Cottonwood River on Noble avenue. The Santa Fe will also start work soon on an 80-acre reservoir just east of the city.

Every railway company operating in Logan county has a force of men at work putting in new sidings at five-mile intervals to take care of the peach shipments. Fully 500 cars of Elberta peaches will be shipped from Guthrie and Logan county, and half as many will be canned in the three or four co-operative canneries being put in in the vicinity of the largest orchards.

The City Park Commissioners will in the next few weeks begin work on the erection of a $50,000 municipal bathhouse to exploit the mineral waters that are found here in so great a variety and quantity.

FRED L. WENNER, Secretary.

Water Power at Cuero.

Commercial Club,

Cuero, Tex., July 23.

Editor Manufacturers Record:

Our water-power plant is now furnishing motive power for the following Cuero industries: Cotton mill with 7000 spindles and 160 looms, three cold-storage plants, packing plant, machine shops, two garages and the city water-works pumping station. The plant has a large reserve power for new industries at low rates.

Our third deep well has just been brought in, and flows at the rate of 30,000 gallons an hour. It is 1172 feet deep. The other two are, respectively, 700 and 824 feet deep, and the combined flow of the three is over 40,000 gallons an hour. The water is pure and wholesome. The city is now trying to get a contract to furnish the railroads with water, as thousands of gallons are going to waste every day. This offers a good opening for a natatorium.

Cuero is now building a $35,000 high-school building and spending $5000 for repairing on another school building, $25,000 sewerage plant, a cotton mill is getting ready to expend $10,000 for improvements, and a number of handsome residences are in course of construction and plans being drawn for others. Prospects are the most promising that we have had for years. Bumper crops are assured, and the highest wave of prosperity ever known is upon us. G. H. HARRIS, Secretary.

Will Erect 81 Residences.

A large residence development in Atlanta has been undertaken by Dr. J. B. Daniel and H. W. Nicholes, both of that city, who will erect 81 residences on property which Dr. Daniel owns on Ponce De Leon, Highland and St. Charles avenues and Barnett street. The residences will be of different architecture, and are estimated to cost from $5000 to $12,000 each. The total investment, including the land, will be about $1,000,000. Mr. Nicholes will supervise construction, and wants to communicate with architects for the purpose of having them submit ideas for modern residences.

Increase in Spelter.

The United States Geological Survey has just made public the statistics of production of all zinc smelters operating during the first six months of 1912. These figures, compiled by C. E. Siebenthal of the Survey, and including figures of the Bureau of Statistics, show that the production of spelter from domestic ore in that period was 159,952 short tons, and from foreign ore 6544 short tons, a total of 166,496 tons of primary spelter, compared with 140,196 tons for the first half of 1911 and with 146,330 tons for the last half of 1911.

Lower Rates on Pig-Iron.

It is announced that, beginning September 1, rail rates on pig-iron from Birmingham and other Southern iron-producing points to Texas will be materially reduced. The present rate to what is known as Texas common points of $8.51 per ton is to be reduced to $6.50 per ton, while the rate to the El Paso group of $9.63 is to be reduced to $7.62. This reduction of about $2 per ton ought to have a stimulating effect in increasing the consumption throughout Texas of Alabama iron.

Available Fuel Supply of Oklahoma.

By Dr. Chas. N. Gould.

For variety and abundance of undeveloped mineral resources, the new State of Oklahoma takes front rank among the States of the Union. The State is so new, its resources so little known and the development so meager, that, at the present time, those best informed can do little more than conjecture what the future will bring to light in this Commonwealth.

Modern civilization is based upon power. Without power, civilization, as we now have it, were impossible. Queerly enough, the known sources of power—sun power, wind power, water-power and fuel—are being utilized in the reverse order of their abundance. That is to say, sun power, which is all-pervasive and all-powerful, is being utilized almost not at all; wind power, which is world-wide and inexhaustible, is being utilized to a very limited extent; water-power, which also is inexhaustible, in the sense that when once utilized it is immediately replenished, is only partly developed.

At the present time it is safe to say that 90 per cent. of the power utilized throughout the world is derived from fuels. Coal, oil and gas furnish the greater part of our power. This condition is unfortunate, because it is well known that fuels, once exhausted, are never replaced, but are gone forever.

While it is true that the development of water-power is making gigantic strides; that wind power is being developed to a limited extent, and that there is some reason to believe that sun power may eventually be economically utilized, the fact remains that the probabilities are that, for the next century, fuel will continue to supply the greater part of the power used in the world. This being true, it follows that the State or community that possesses large quantities of fuel of any kind has a great and lasting advantage over the State or community that does not possess this fuel. Particularly is it true that the State of community which possesses considerable quantities of more than one kind of fuel has a tremendous advantage.

Oklahoma has very large supplies of the three valuable fuels—coal, petroleum and natural gas.

The coal supply of the State is located in the eastern and northeastern counties. More than 20 counties in Oklahoma are known to contain coal. There are 12 or more beds of workable thickness, varying all the way up to eight feet thick. Mines have been successfully operated in 10 counties in the State. The greater part of the production comes from Pittsburgh, Coal, Latimer and LeFlore counties.

The United States Geological Survey is authority for the statement that Oklahoma possesses 79,000,000,000 tons of coal. For the past 10 years the average amount mined has been about 3,000,000 tons per year. On this basis, assuming that the production did not increase, there is enough coal in sight in Oklahoma to last more than 25,000 years. This estimate, however, it obviously unjust, for the reason that the production of coal must eventually increase very rapidly. It is safe to say, however, that, taking into account he normal increase in production, the coal in Oklahoma will last for hundreds of years.

Much of this coal land cannot now be purchased, on account of the fact that some years ago it was segregated or set apart from settlement. The title is now in the Choctaw and Chickasaw Nations, and a Congressional enactment is necessary to release the title. There are, however, large areas of coal lands which may be purchased at very low farm values, much of it from $5 to $25 per acre.

Last year Oklahoma produced something over 53,000,000 barrels of petroleum, being excelled only by the State of California. The greater part of the oil so far found in Oklahoma occurs in the northeastern counties. There are a number of developed oil fields, for instance, the Glenn Pool, Bartlesville field, Shallow field, Muskogee field, Okmulgee field, Cleveland field, each of which have produced millions of barrels of oil.

For the past several years development has been curtailed, on account of the low price of oil. Two years ago oil sold on the market for about 35 cents a barrel. A year ago it was 45 cents. Today the price is 70 cents per barrel, and advancing rapidly. There is every reason to believe that within the next few months Oklahoma oil will sell for $1 per barrel. This increase in price is naturally stimulating production, and during the past few months many new wells have been drilled.

The oil wells in Oklahoma vary in depth from 500 to 2500 feet, the average depth being perhaps 1200 feet. The cost of drilling and equipping a well 1200 feet deep will average from $2000 to $2500. The wells have an initial daily production averaging all the way from 25 barrels to 500 barrels, but decline steadily for several months, after which time they have a settled production of from 5 to 20 barrels per day. Under ordinary conditions a well will pay for itself the first year, often during the first month, after which time it produces a steady income. Many men who a few years ago were poor now have an income of hundreds of dollars per day as royalty from oil found on their farms.

One fact which perhaps more than any other leads to the conclusion that the price of petroleum will continue to advance is the invention of the Deisel oil engine. This is an internal combustion oil engine, which utilizes crude petroleum much as gasoline is utilized in a gasoline engine or natural gas in a gas engine. That is, the oil is turned directly into power without the intervention of steam. Fortunately, any kind of crude petroleum may be utilized. That is to say, ordinary petroleum may be run through the refinery, the light oils, such as naptha, benzine, gasoline and kerosene, extracted, and the residue, containing the heavy oils, utilized in the Deisel engine.

The steam engine is a very wasteful piece of machinery. It is estimated that, under ordinary conditions, not more than 15 per cent. of the heat units from coal or oil are transmitted into power in the steam engine. In the Deisel engine, however, the efficiency is 60 per cent. or more. That is to say, the Deisel engine is more than four times as efficient as the steam engine. Tests which have recently been made on ocean steamers have proved entirely satisfactory, and Sir Marcus Samuel, who is at the head of the Shell Transportation Co., which owns 70 ocean vessels, recently made the statement that his company would never install another steam engine. The British Admiralty has recently adopted oil for use in the British warships. This means, of course, that the other nations must follow suit. These facts can lead to but one conclusion—that oil will be utilized more and more for the generating of power.

At the present time only a relatively small per cent. of the possibly productive oil fields of Oklahoma have been developed. There are many regions where no drilling has ever been done which, judging from all possible data, should be equally good with those already developed. Much of the land which should be productive oil and gas land, and which is also fairly good farm land, can be purchased at a price ranging all the way from $5 to $50 per acre.

Oklahoma produces more natural gas than any other State. There is no way of determining the exact amount produced, because of the fact that a large per cent. of it is going to waste, but, taking into account the gas being piped out of the State, that being utilized for domestic purposes and for factories in Oklahoma, as well as that which is allowed to escape into the air, the estimate may be made that, at the present time, approximately 2,000,000,000 cubic feet per day are available.

For some years the waste of gas in Oklahoma was enormous, and wells which were drilled for oil and encountered gas, for which there was at that time no ready market, were permitted to stand open, and the gas was allowed to escape into the air. A recent act of the Oklahoma Legislature, however, prevents this criminal waste of valuable fuel. Up to the present time, however, there has been very little done in the way of utilization of the so-called "casing head gas"; that is, the gas which escapes from producing oil wells.

The greater part of this gas, of which there is a tremendous amount in Oklahoma, is still permitted to escape. It has recently been found, however, that this casing head gas which escapes from oil wells contains considerable quantities of the lighter oils, particularly gasoline, and there are at the present time in Oklahoma a dozen or more gasoline plants which extract gasoline from the casing head gas. Under ordinary conditions, three to five gallons of gasoline may be taken from 1000 cubic feet of natural gas.

Another invention, which is just being perfected, will do much toward the utilization of this waste material. I refer to the liquefaction of the natural gas. Experiments have just been completed which indicate that it will be entirely possible to liquefy natural gas, place it in steel containers which may be transported to any distance, and the gas utilized for ordinary domestic purposes. When this has been done we may expect that the greater part of the casing head gas now going to waste in Oklahoma will be utilized.

As in the case with the oil fields, so with the gas. There are very large areas which should contain natural gas yet undeveloped in Oklahoma. It may be confidently expected that within the next few years many of these areas will be developed and the visible supply of this valuable fuel will be greatly increased.

There is no method of determining the possible length of life of the oil and gas fields. It is the ordinary experience that these substances, once encountered, are soon exhausted. On the other hand, some of the first oil wells drilled in Pennsylvania, more than 50 years ago, are still producing small quantities of oil. We may expect that it will be many years before the last of the Oklahoma oil fields have been developed, and still longer before the developed fields are exhausted. If I were to venture a guess as to the life of the oil and gas fields of Oklahoma, I would say that we may expect that 50 years from now Oklahoma will still be producing oil and gas.

Basis of Vicksburg Prosperity

[Special Correspondence Manufacturers Record.]

Vicksburg, Miss., July 25.

All the world knows of Vicksburg as the place where the Confederacy was split in twain. The graves of 17,000 Union soldiers sepultured in one of the greatest military cemetaries the world contains testify to the valor of the contending armies in the mighty struggle that finally swept the Federals to victory, opened the Mississippi River from Itasca to the Gulf and gave to General Grant such prestige as a warrior as eventually landed him in the Presidency and brought immortal fame.

Memories of that tremendous conflict are forever fastened to the name of Vicksburg. Even the casual visitor is impressed by the Vicksburg National Military Park, which preserves the fortifications and the lines of operation of that fearful struggle, and tourists to the number of over 40,000 annually make a pilgrimage to Vicksburg solely to visit the military park and cemetery.

The National Government and all the States whose soldiers were participants in the siege have appropriately joined in the erection of permanent and striking memorials of the historic conflict, and there is full appreciation, among the people of Vicksburg, as well as in the outside world, of the significance and importance of commemorating the events that have given Vicksburg a lasting place in history.

Outside the fame that has come to Vicksburg through martial valor, however, there are being laid here the foundations for a broad and permanent prosperity in various lines of development, such as should make Vicksburg widely known as not only an interesting place for the tourist to visit, but as a good, growing city and a desirable place to live. It is a fine, sightly city, overlooking the river and the broad expanse of alluvial land on the Louisiana side of the Mississippi River; is on the main line of the Yazoo & Mississippi Valley Railroad, running between Memphis and New Orleans, Illinois Central system; and has the Alabama & Vicksburg, and Vicksburg, Shreveport & Pacific roads, which form a part of the Queen & Crescent route. It is at the southern end of the so-called delta, an elliptical area 200 miles long and having a maximum width of 60 miles, between the Mississippi River and the headlands, or bluff hills on the east, and running as far north as the outposts of Memphis. It might more properly be called the "Mississippi Yazoo flood plain," but as the delta it is known, and probably will continue to be known, as by this name the region has grown into public knowledge as one of the finest agricultural sections on the globe. Here the famous long-staple cotton grows, and a bale and a half of cotton per acre has frequently been raised on large areas. The soil is also adapted to corn, oats, grasses, vegetables and fruits. Some of the finest of the ideal old Southern plantations, with the real romantic type of Southern planter domiciled thereon, are to be found in this delta country in all their glory.

An asset of importance already, the delta country will be of added advantage to Vicksburg, conspicuously among the trading centers to be benefited when through adequate and reliable drainage

all of the 5,500,000 acres the delta contains has been made fit for the plow. At present between a half and two-thirds of the area is not and never has been under cultivation. With its numerous rivers, bayous and lakes, the same conditions that have made a comprehensive drainage system a necessity have provided transportation facilities unequaled in the State, for outside of the railroads there are 1000 miles of navigable waterways in the delta country. The principal stream, the Yazoo River—which seems to have derived its not more pleasing form of orthography from the Fort Yasous the French first established on the site of Vicksburg—has placed Vicksburg under lasting obligations in a directly personal manner, besides being an important tributary waterway. Through the idiosyncracies of the Mississippi a new channel was created a number of years ago that left Vicksburg several miles inland. This malign fate was overcome by digging a broad and deep canal at a cost of nearly $2,000,000, whereby the Yazoo River was made to flow past the doors of Vicksburg and to a junction with the Mississippi below, so that Vicksburg once more became a port. While the former glories of river traffic have not been revived here, or anywhere else on the Mississippi, and never may return, yet the advantages of river freight rates are of greatest moment in controlling all transportation charges, and steamboat traffic is in itself an item of no trivial importance. Local packet lines, covering all river points, help to swell the volume of Vicksburg's business, and Vicksburg is now the third city of importance as a Mississippi River point, New Orleans and Memphis alone exceeding it in amount of river tonnage.

The only drydocks between Cairo and New Orleans are at Vicksburg. The United States Government fleet of 100 various kinds of water craft has its headquarters to the north of the city, bringing advantages outside the $300,000 or $400,000 a year the payroll and expenditures for upkeep represent.

Since the restoration of the river traffic Vicksburg's standing as a jobbing town and a trading center has experienced a marked revival, and in these lines much of the city's future importance will lie. At the same time, the real growth of Vicksburg, the substantial basis on which will be founded a lasting and a notable development, must come from the farm and the factory. In both these lines there is room for expansion far beyond anything that has yet been seen.

As an educator, the boll-weevil has probably never had an equal in this region. Diversification had been preached for years by the editors and the professors, generally to listless and drowsy auditors. One little season of busy action by the weevil set everyone agog. Some got scared and quit, but nearly everybody in the belt got busy right away on measures to combat the evil. The transformation is not complete by a very great deal, but the way the people generally have turned to livestock and diversified farming is certainly a hopeful augury. As an indication it is reported that grain shipments from the West have fallen off 60 per cent. in the past three years. A market for home-grown corn and oats has been established, which has given a great stimulus to grain growing in this section. All over Mississippi the same conditions prevail, as witness the fact that at a national corn exposition held at Columbus, O., 33 Mississippi boys were exhibitors, as against 19 for South Carolina, the State showing the next largest number. The 33 Mississippi boys raised an average of 137.9 bushels to the acre, and of the four contestants who raised more than 200 bushels to the acre, three were from Mississippi.

Only a start has been made in stock raising, but already it has been amply demonstrated that there is practically an unlimited field for this industry. In this line the work being done by Prof. E. R. Lloyd of the Mississippi Agricultural College experiment station is of exceeding interest and importance. Ordinary Mississippi steers, fed on hulls, cottonseed meal and five pounds of hay daily for 150 days, were sold by him at St. Louis recently for $8.50 per 100 pounds, which was 15 cents above the Kansas City quotations of that day for best native beef steers and $2.50 per 100 pounds higher than Texas Grassers brought on St. Louis market the same day.

Professor Lloyd is quoted as saying the experiments were made to show the farmers and livestock dealers of Mississippi that the native cattle could be fed at a profit, and to break up the general belief that Mississippi cattle are only fit to grass. As Professor Lloyd showed 100 per cent. profit in his operations, the demonstration was considered to have been an eminent success.

The Farmers Stockyards Co. has recently been organized by business men of Vicksburg to furnish a market for any number or kind of stock at any time, with the idea of making Vicksburg a concentration point and arousing the interest of the farmers in stock raising. Packing plants at Memphis and Natchez have been started to stimulate stock raising, and it is regarded as altogether possible to bring about a much greater development of the packing-house industry all over this section. The soil and climate are altogether favorable to the raising of cattle, hogs, sheep, etc., and when the livestock industry is well under way it is declared that horses and mules and dairy cattle should also be raised in large numbers. Forage crops of all kinds can be raised, and peanuts do especially well. It is stated that 80 bushels to the acre have been raised in this section. From 600 to 1200 pounds of pork have been obtained per acre of peanuts. A very considerable development in peanut growing is now under way. It is stated that 120,000 acres of peanuts have been planted within the territory 100 miles south and 50 east of here, and at the beginning of this season 35 carloads of white Spanish peanuts were shipped in here for seed.

In addition to their value as a forage crop for stock, an important development of peanuts for oil, peanut butter, peanut candy and salted nuts is foreseen as a possibility. As peanut oil does not congeal in low temperatures, and is very palatable and wholesome, its extensive use is regarded as an inevitable development of the future.

Rice growing has also received an impetus since the boll-weevil came. A great deal of the delta land now uncultivated could be very profitably devoted to the rice culture. Within 50 miles of Vicksburg on both sides of the river—mostly on the west side, however—there are about 12,000 acres of rice in cultivation now. A rice mill is talked of as a possibility, and the continued growth of the industry is considered a certainty.

Trucking is engaged in to some extent, but nothing like the advantages of soil, climate and proximity to the big markets of the country would warrant. An almost infinite variety of truck, as well as berries and fruit, including figs, peaches, and even some varieties of apples, can be raised here in perfection. There is some awakening to the possibilities in this line, and interest is being aroused in a truckers association and a cannery.

There are many strong attractions to the immigrant to settle in Mississippi, the climate being favorable and healthful; the soil being adapted to a wide variety of products; the railroads co-operating in every way to furnish exact information and every possible facility, and the people of the State extending a welcome to the newcomer, whatever section he may hail from. Land can be had anywhere at prices that will double and quadruple within a few years. The demonstration that such Southern States as Mississippi and Louisiana are most excellent corn States has opened the eyes of Northerners, with the inevitable result that conditions and prices must speedily change. In a recent publication it was pointed out that during the past 10 years corn-fed livestock in Missouri and Illinois had doubled farm land values in those States, bringing them to a total of $5,000,000,000. With Mississippi and Louisiana demonstrating that they can duplicate the experience of Missouri and Illinois in raising corn and producing corn-fed livestock, it was declared that land values in those Southern States would be brought to the same level as in the Northern States named.

With the increase in population and wealth certain to come, there will be an ever-expanding opportunity for industrial development through the increase in home consumption, the growth in labor population and the accumulation of surplus capital for investment in industries. Nevertheless, there are immediate opportunities for men experienced in their lines, and Vicksburg presents openings of various kinds. This is a great hardwood market, being in a section where the growths of hardwood timber are among the greatest in the entire country. There are already some extensive woodworking plants here, including a furniture factory, box and crate factory, etc., but as throughout all Mississippi, timber is mainly sent out of the State to be manufactured elsewhere. In discussing the outlook here with a man who himself has come from the outside and established a plant, it was maintained by the speaker that a great variety of openings existed here for men who know their business. "For instance," said he, "a hardwood flooring and housefurnishing material plant ought to do well here. Not much capital would be required, and as for labor, negro help can be taught to run machines. I have had experience, and I know. There is no plant of this kind nearer than Memphis and Cincinatti, so that a plant here could ship to points south as far as Texas, also to Mexico and for export trade.

"There is door core stuff here in abundance, so a veneering door plant would be able to find all material at hand, and ought to be a success. Sash and door factories will be successful if managed right.

"There is a big consumption of farming implements around here. It wouldn't require a great amount of capital to establish a plant for the manufacture of the lighter implements as a starter, and seeding machines should be made here. Harness, singletrees, etc., could be made out of cull timber. The waste from the ash-oar factory here would run a small hame factory, and there are a number of other opportunities for a good manager to get a start in a small way and work up a good business. We have favorable freight rates as far away as Georgia, Alabama, Virginia, Louisiana and Texas; we have an bundance of raw material, the town is a good place to live in, so there needn't be any difficulty about getting labor, and there is no reason why a wide-awake pushing man needn't make a success in any one of a number of industrial undertakings."

ALBERT PHENIS.

FOR YARDS AND GARDENS.

Prizes Awarded by a Company Operating in West Virginia.

[Special Cor. Manufacturers Record.]

Gary, W. Va., July 27.

Results of this year's competition among employes at the various plants of the United States Coal & Coke Co. for prizes for the best yards and gardens have gratified the management and have encouraged the participants. The awards were announced a day or two ago. They were $10 for the best-kept garden and $5 for the best-kept yard at each plant, with an additional prize of a lawn swing, given by the agricultural department of the Norfolk & Western Railway, for the best-kept garden and premises generally at all the plants. This was awarded to John Wolfe, a German, at plant 9. For the best-kept gardens prizes were received by 3 Hungarians, 2 white Americans, 2 negroes, 2 Germans, 1 Pole and 1 Slav, and honorable mention was given 3 Italians, 2 Hungarians, 2 white Americans, 2 negroes and 2 Poles. For the best-kept yards prizes were given to 7 white Americans, 1 negro, 1 Italian, 1 German and 1 Slav, and honorable mention was made of 5 white Americans, 2 Germans, 2 Slavs and 1 negro.

The committee making the awards were men interested in the agricultural advancement of the country, and consisted of Prof. C. R. Titloe, director of agricultural extension, college of agriculture, West Virginia University, Morgantown; Dr. E. A. Schubert, traveling agent of the agricultural and industrial department of the Norfolk & Western Railway Co., Roanoke, Va., and Professor Hanifan, State Superintendent of Rural Schools, Charles Town, W. Va. Colonel and Mrs. Swope of Welch accompanied the party. In making the awards the location and natural conditions were taken into consideration, as well as the general appearance of the yards and gardens.

The interest and pride taken by the householders in keeping their yards and gardens proved a revelation to the entire committee, and the value of same to the householders is almost invaluable, for aside from a monetary standpoint, it gives the householder fresh vegetables throughout the greater part of the year. After seeing the gardens the committee estimated that from a monetary view alone the gardens will average at least $100 per garden, while a number of them will greatly exceed this amount, and an estimate of the gardens as a whole was placed at from $15,000 to $20,000. The manner in which the gardens and yards are kept at the various works shows that the householders are becoming awakened and getting to know what good gardens mean to them. Improvements in the yards and gardens also lead to sanitary improvements, and great benefit is derived from this source.

Dr. Schubert, who served on the committee last year, said that in his opinion the sanitation had improved and that the gardens had improved at least 200 per cent.

These premiums will be awarded from year to year, as improvements in the yards and gardens will be of vast benefit to the householders, the company and the surrounding community.

A letter from Charlotte, N. C., says that the Charlotte Electric Street Railway Co. will furnish the Charlotte Rapid Transit Co. with electric current to operate its line by the trolley system to the Mecklenburg Country Club, Piedmont, Sunnyside and Belmont. Paul Chatham is president of the Rapid Transit Co., and F. M. Laxton is engineer.

TO TREBLE ITS PLANT.

Lima Locomotive Company to Spend $2,000,000 on Enlargements and Working Capital.

With a view to more than trebling the capacity of its locomotive output and increasing it from about 300 locomotives to from 900 to 1000 a year, the Lima Locomotive Corporation of Lima, O., is arranging to issue $2,000,000 of bonds, the proceeds of which will be used for the erection of larger buildings, the purchase of equipment required and additional working capital. This company, formerly known as the Lima Locomotive & Machine Co., was established more than 40 years ago. It is now operating its present plant at full capacity, and is building locomotives for many of the transcontinental and trunk lines of the United States and Canada, including the Pennsylvania, New York Central, Erie, Southern, Rock Island, Dalaware, Lackawanna & Western, Grand Trunk and many smaller roads. Its net earnings for seven years applicable to interest charges and deductions for depreciation have averaged approximately $280,000 per annum, or $1,958,454 for the seven years, and of this, more than $1,300,000 has been carried to surplus account or retained in the business. The new issue of bonds will be brought out by Fisk & Robinson, a prominent banking house of New York.

BIG DEVELOPMENT IN KENTUCKY

A $5,000,000 Investment Planned by New York and Toronto Capitalists.

The Kentucky Coal & Timber Development Co. is planning a big enterprise for Kentucky, and T. S. McGrath of Chicago wires the MANUFACTURERS RECORD as follows:

"Cruisers and engineers just off the property, so details depending on reports and blueprints are not yet worked out. Developments cover about 90,000 acres, including about 100 miles of standard-gauge standard-construction railway, modern mines, logging railways and mill; investment, approximately $5,000,000; interested parties, D. H. Sill of New York, C. D. Warren, president of Traders' Bank, Toronto, Canada, and others."

James W. Sewall, Old Town, Maine, writes the MANUFACTURERS RECORD that, under his direction, the Appleton & Sewall Company of New York has completed explorations for timber estimates on 50,000 acres of the Kentucky company's property. The lands are in Breathitt and Knott counties.

Activity Following Railroad Construction.

A correspondent writing from Bailey, N. C., calls attention to the activity along the line of the Norfolk & Southern Railway from Raleigh to Chocowinity, and adds:

"This is a new road about 103 miles long, and has opened up a fine farming country. The farmers seem to be doing 100 per cent. more business and at less expense than before the building of the road, the merchants and manufacturers doing equally as well. The towns are all new and booming."

Everglades Drainage.

More than half of the excavation work of the drainage of the Everglades of Florida has been done, according to a report of Major J. O. Wright, chief drainage engineer of the State. Between September 30, 1910, and June 30, 1912, the Furst-Clark Construction Co. has excavated 11,359,375 cubic yards of earth and rock, or 59.6 per cent. of the estimated yardage of its contract.

GOOD ROADS

WEEK'S HIGHWAY RECORD.

Progress in Southern Road and Street Improvement.

[Full details of highway undertakings are given in the Construction Department, published elsewhere in this issue.]

Bonds Voted.

Bremond, Tex.—Precinct No. 5 of Robertson county voted $100,000 bond issue for road construction.

Greensboro, N. C.—City voted $130,000 bond issue for street improvements, water and sewer mains, etc.

Raleigh, Miss.—Raleigh county will issue $25,000 of bonds for road constructin.

Sherman, Tex.—City voted $100,000 bonds issue to pave streets, etc.

Valdosta, Ga.—City voted $25,000 bond issue for street paving.

West Palm Beach, Fla.—Special Road and Bridge District No. 2, Palm Beach county, voted bond issue of $60,000 for road construction.

Winston-Salem, N. C.—City voted $100,000 bond issue for street improvements.

Bonds to Be Voted.

Kingwood, W. Va.—Preston county votes on $200,000 bond issue for road construction.

New Iberia, La.—Iberia parish will vote on $180,000 bond issue for road construction.

St. Joseph, Mo.—Buchanan county votes August 3 on $1,000,000 bond issue for road construction.

Contracts Awarded.

Corinth, Miss.—Corinth, Shiloh & Savannah Turnpike Co. awarded contract to grade and gravel 11 miles of turnpike from Shiloh Park to Mississippi line.

Culpeper, Va.—City awarded contract at $25,949.34 to macadamize 4.3 miles of streets.

Fulton, Mo.—Fulton Special Road District awarded contract at $28,700 to grade about 28 miles of highways.

Paris, Tex.—Board of Permanent Road Commission awarded contract to construct 42 to 48 miles rock highway; amount available $300,000.

Stafford, Va.—Stafford county awarded contract at $2294.97 per mile to construct seven miles on Warrenton road, with privilege of extending distance to 10 miles; also at $2764 per mile to construct 16 miles.

Contracts to Be Awarded.

Baltimore, Md.—City received bids August 1 to pave 13,700 square yards with granite block or Hassam granite block and 4600 square yards with vitrified block.

Baltimore, Md.—State Roads Commission receives bids August 13 for building 11 sections of State highway, aggregating 23.66 miles.

Decatur, Ala.—City will construct water-bound macadam driveway 16 feet wide and about one mile long.

Gainsboro, Tenn.—Jackson county will grade, ditch, drain and macadamize 30 miles roads.

Green Cove Springs, Fla.—Clay County Commissioners will open bids August 5 on stumping and grading road; about 20 miles road to be constructed.

Jasper, Ala.—Waler county will grade and drain part of Jonesboro road; expenditure $8000.

Lexington, Ky.—Clarence Le Bus, president Burley Tobacco Society, will construct several miles macadam roads, etc.

Lunenburg, Va.—Brown's Store District will construct 37 miles of roads.

Memphis, Tenn.—City received bids July 30 to pave and curb 500 square yards concrete pavement and 250 linear feet steel-bound concrete curb; 380 square yards concrete pavement; 1560 square yards concrete pavement and 360 square yards brick pavement and 360 square yards concrete foundation.

Paragould, Ark.—City will pave principal streets; cost $100,000.

Plaquemine, La.—Iberville Parish Police Jury appropriated $45,000 to construct gravel roads.

Quincy, Fla.—Gadsden county receives bids August 6 to construct eight miles of gravel roads.

Richmond, Va.—Henrico county receives bids August 6 to construct one mile of macadam road.

Spottsylvania, Va.—Spottsylvania county received bids August 1 to construct 4½ miles gravel road.

Talladega, Ala.—Talladega county receives bids August 28 for grading, draining and surfacing with gravel part of Talladega and Mardisville road.

Terrell, Tex.—City will construct 3300 linear feet cement sidewalks and about 20,000 square yards pavement, and 5000 linear feet cement curb and gutter.

Upper Marlboro, Md.—Prince George's county will improve one mile of road.

Vandalia, Mo.—City will pave 10,000 square yards streets.

Waco, Tex.—City opens bids August 6 for paving about 53,229 square yards of pavement in residence and business section; amount available $65,000.

West Palm Beach, Fla.—Special Road and Bridge District No. 1 will expend about $85,000 on road construction.

ARKANSAS DRAINAGE.

Plan for 195,000 Acres in St. Francis Valley.

R. E. Lee Wilson, president Lee Wilson & Co., Wilson, Ark., writes to the MANUFACTURERS RECORD regarding plans for developing property in the St. Francis Valley of Arkansas:

"There was a large drainage district organized here in the past fall and winter, containing 195,000 acres, having drainage ditches every mile. There were about 300 miles of ditches. The contract was sold covering the entire expense, amounting to $1,250,000. This work was done by issuing bonds, the bonds being sold to Crompton & Co. of St. Louis and the Harris Trust Co. of Chicago at better than par; bonds bearing 5½ per cent. interest. I saw Crompton and the Harris Trust Co. one week after the bonds were delivered to them, and they told me that they had sold the entire issue, showing that the people who invested in the bonds had great confidence in the future of the St. Francis Valley of Arkansas.

"There will be 25 drainage boats put in this work. We figure on getting the work completed in three years. We have a large lot of land in this district, and as fast as the timber is removed from the land we put it in cultivation or sell it to settlers. There is a splendid market for the land here, as Northern people are coming in very rapidly and buying the cut-over lands and improving same. We think that when this drainage district is completed, with the several other smaller districts that are being organized in our county, this will be the best-drained county in the St. Francis Valley of Arkansas, and that it will bloom like a June rose.

"In one of our county-seats, Blytheville, they are now building a large cotton compress, the construction of which will require 1,000,000 feet of lumber. We are building a new $100,000 courthouse at another county-seat, Osceola, Ark., and contemplate building a new courthouse at Blytheville equally as good as the one at Osceola."

RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

WHEELING TRACTION SOLD.

Proposed Extensions Now to Be Fulfilled by the West Penn Company.

The West Penn Traction & Water Power Co., which is controlled by the American Water-works & Guarantee Co., Pittsburgh, Pa., has purchased the Wheeling (W. Va.) Traction Co., according to announcement made by Geo. H. Miller, American Building, Baltimore, representing J. S. and W. S. Kuhn, Inc., of Pittsburgh. The traction company at Wheeling has lines running to 40 cities and towns in the Ohio Valley, both north and south of Wheeling, and the deal provided for the property to be taken over by the purchasers on August 1. Survey is in progress, preliminary to the construction of a high tension power transmission line to connect with the West Penn system through Washington, Pa.

Work will soon begin to extend the interurban lines of the Wheeling property in several directions, and the high tension power lines will be simultaneously extended. A contract has been let to build a dam at the first development of the hydro-electric plant of the West Penn Company on Cheat River, West Virginia, the contractor being the T. A. Gillespie Company. Estimated cost is about $1,000,000, but this does not include machinery and equipment. This first development on Cheat River will have an installed capacity of 48,000 horse-power, but after the other developments upstream are completed it is expected that over 100,000 horse-power will be available.

The Wheeling Traction Co. operates 50 miles of line outside of the city, the track having 85-pound rails, while in the city 95-pound girder rails are used. It has 130 cars, and serves a population of about 150,000 people. Among the places reached are Bridgeport, Moundsville, Bellaire, Benwood, Martin's Ferry, McMechen, Fulton, Whitefield, Leatherwood, Parkview, Elmgrove, Triadelphia, Roney's Point, Point Mills, Loveland, Warwood, Glenova, Wellsburg, Lazearville, Shadyside, Florence, West Wheeling, Brookside, West Bridgeport, Lansing, Pasco, Barton, Etnaville, Burlington, Glens Run, Yorkville, Tiltonville, Connorville, Portland, Brilliant, Mingo Junction and Steubenville.

With the acquisition of the Wheeling properties the West Penn Company has 259 miles of track in operation, serving about 580,000 people. This is exclusive of any part of Pittsburgh.

ABOUT OUR RAILROADS.

Operating Revenues Now Well-Nigh Three Billions of Dollars a Year.

Under the interstate commerce laws data covering 240,124 miles of line were received by the Interstate Commerce Commission for the year ended June 30, 1911, and that body has just issued an abstract of the statistics thus gathered. The total freight revenues of the railroads of this country during the period were $1,925,950,887, and the aggregate passenger revenues were $657,638,291. Thus about one-quarter of the money received by the railroads for transportation was for passenger service and the rest, or nearly all of the rest, is from freight service. It is true that there is some income from the mails, express, excess baggage and for the carrying of milk on passenger trains, also from parlor and chair cars, from switching service, etc., but the chief sources of income

are passengers and freight, making the total operating revenues $2,789,761,669.

Operating expenses showed the cost of conducting transportation to be $987,382,108, this being the chief item in the expense account; others therein were maintenance of way and structures, $366,025,262; maintenance of equipment, $428,367,306; traffic expenses, $59,166,364; general expenses, $73,689,373. Some other small items made the total operating expenses $1,915,054,005. Ratio of operating expenses to operating revenues was 68.66 per cent. Operating revenues averaged $11,460 per mile, and operating expenses $7867 per mile. Total net operating revenues were $874,707,664, and total net revenue (the net from outside operations being added to the foregoing) were $876,522,857. The year's balance to credit of profit and loss was $170,212,186, and the total credit to profit and loss at the end of the year was $1,059,151,788.

Dividends declared during the twelvemonth amounted to $460,195,376, or an average of 8.05 per cent. on dividend-paying stock, but over 32½ per cent. of the total capital stock outstanding paid no dividends. Neither was there any interest paid on 7¼ per cent. of the funded debt other than equipment trust securities.

The freight figures revealed that the number of tons carried was 1,781,637,954, a decrease of 68,262,147 tons. The ton mileage was 253,783,701,839, a decrease of 1,233,208,612. The number of passengers carried was 997,409,882, an increase of 25,726,683. The passenger mileage was 33,201,694,699, an increase of 863,198,370.

The equipment of the railroads at the end of the year consisted of 61,327 locomotives, an increase of 2380, and 2,359,335 cars, an increase of 69,004. Nearly 99 per cent. of the equipment was fitted with train brakes, and over 90½ per cent. with automatic couplers.

The total number of persons employed by the railroads was 1,669,809, and they received for their services the total sum of $1,208,466,470.

The value of the railroads as represented by their stocks and bonds at par was $19,208,935,081. Of this amount, $8,470,717,611 was stock, of which latter sum $1,395,800,052 was preferred, the rest ($10,738,217,470) being funded debt, the mortgage bonds thereof amounting to $7,825,269,102, the remainder consisting of collateral trust bonds, other bonds, debentures, income bonds, equipment trust securities, etc.

BRIDGE AT BATON ROUGE.

Southern Pacific Company Contemplating One—Survey of River to Be Made.

Officers of the Southern Pacific Company in New York are quoted as saying that plans for the construction of a railroad bridge over the Mississippi River to connect Baton Rouge and Port Allen have not taken definite form, although the erection of a bridge has been contemplated for some time. At present there is a ferry service conducted across the river by the railroad company, but increase in traffic is said to demand that something better than this be provided.

In June it was reported from Baton Rouge that a company with $1,000,000 capital had been organized to bridge the Mississippi four miles below that city, and it was stated that transcontinental railroads were backing it, the incorporators being Hugh Chamberlain of Baton Rouge, Joseph E. Hedges of New York, L. S. Stewart of Kansas City, W. B. Chamberlain of New York, Walter Bynum and F. B. McQueety of Baton Rouge. It is now reported from there that Mr. McQueety, formerly secretary of the Baton Rouge Board of Trade, is in New York working on the bridge plans, but local interests are silent about the proposition. In this connection it is said that Mr. McQueety was formerly connected with the railroad contracting firm of Kenefick, Hammond & Quigley.

Another report states that Col. Lansing H. Beach, United States engineer at New Orleans, has been instructed to survey the river at Baton Rouge to determine whether the contemplated bridge can be erected so as to offer no obstruction to navigation. It is understood that the survey will soon begin.

TO OPEN ARANSAS HARBOR.

Terminal Railroad Completed and Other Preparations Under Way—Another Line Coming.

In connection with the railroad extensions and improvements now being made at and toward Aransas Pass, Tex., recent official information relating to the channel work now being done there by the Government is especially interesting. It is now stated that by the opening of the cotton season there will be a safe channel of 20 feet depth from the terminals on Harbor Island to the Gulf. There is already a channel 20 feet deep and 340 feet wide from the 20 feet contour in the Gulf to the island, excepting for about 600 feet, where the width is 250 feet, but this will soon be widened. A dredge is now at work upon it, and a roadstead with 20 feet depth is also being dredged in front of the island, but ocean steamers of considerable draught can already enter the harbor. It is further said that the steamship Brinkburn will sail from there for Bremen on August 7 with a cargo of 15,000 bales of cotton, thus opening the new port.

The Aransas Harbor Terminal Railway Co., in which Alexander Brown & Sons of Baltimore are interested, has recently completed its railroad six or seven miles long to the outer side of Harbor Island, and is now completing its wharf. As hitherto reported, the San Antonio, Rockport & Mexican Railway, in which English capital is interested, is also planning the construction of a line from Rockport to Harbor Island.

ATLANTA TO ST. MARY'S.

Capt. L. Johnson's Plans for Another Railroad Across Georgia.

Capt. L. Johnson of St. Mary's, Ga., and president of the Atlantic, Waycross & Northern Railroad Co., which proposes to build a line across the State to Fort Valley, Ga., has recently visited Atlanta and announced his plans to ultimately reach there with his road, which now has about 11 miles in operation from St. Mary's to Kingsland, connecting with the Seaboard Air Line. He is also reported saying that the company has secured about 80 per cent. of the right of way desired from Kingsland to Fort Valley, and that if possible an arrangement will be made with the Southern Railway to use its track from there to Atlanta. If that cannot be done it is proposed to build independently. It is 307 miles from Atlanta via Fort Valley to St. Mary's, and the distance from Atlanta to Fort Valley is about 100 miles.

Captain Johnson is quoted saying that St. Mary's is a particularly advantageous port for shipments destined to go via the Panama Canal route. There is 30 feet of water on the bar at low water. The harbor is land-locked. Contracts are under consideration for the extension of the line from Kingsland to Waycross. There are $4,800,000 of bonds and $1,500,000 of stock already authorized for the road, and application will be made if necessary for authority to issue $2,000,000 more of bonds for the contemplated line from Fort Valley to Atlanta.

New Equipment, Rails, Etc.

Paris & Mt. Pleasant Railway has ordered a 10-wheel locomotive from the Baldwin Works, Philadelphia.

Chesapeake & Ohio Railway has ordered 120 tons of bridge steel (for 22 small spans) from the American Bridge Co., New York.

Virginian Railway is reported in the market for nine cabooses.

Illinois Central Railroad has ordered 10 six-wheel switching locomotives from the American Locomotive Co., New York.

Southern Railway has ordered 30 mikado locomotives from the Baldwin Works; also 10 passenger locomotives, 6 freight locomotives and 4 switchers from the American Locomotive Co.

Georgia Railroad has ordered six 10-wheel locomotives and two six-wheel switchers from Baldwin's.

Pine Bluff, Sheridan & Southern Railway is in the market for 14 miles of 56 to 60-pound good relaying rails and fastenings; also from 20 to 30 good flat cars of 60,000 pounds capacity each and one mogul locomotive of 50 to 60 tons. E. S. McCarty is president at Sheridan, Ark.

Texas, Oklahoma & Eastern Railway has ordered a Baldwin mikado locomotive.

Georgia Southern & Florida Railway, Macon, Ga., has authorized the purchase of 6 freight locomotives, 4 switching engines, 4 steel express cars, 2 steel mail cars, 5 steel passenger cars, 60 flat cars and 208 steel underframe ventilated box cars, all to be delivered as early as possible.

Boston Coal Co., says a report from Fairmont, W. Va., has bought 400 steel hopper cars from the Cambria Steel Co., Johnstown, Pa.

Louisiana Southern Railroad has received the first of several motor cars built by the General Electric Co. for it and other Frisco lines.

E. T. Lamb Goes to Atlanta.

Reports from Norfolk, Va., say that President and General Manager E. T. Lamb of the Norfolk Southern Railroad has resigned to become the chief operating officer of the Atlanta, Birmingham & Atlantic Railway, which is now under a receivership. It is further rumored that he will also become president of the road when it is reorganized. The receivers, H. M. Atkinson and S. L. Schoonmaker, as announced last week, have been authorized to spend $800,000 immediately out of the proceeds of a $5,000,000 issue of receivers' certificates, which sum will be devoted to extensive betterments on the line, which runs from Birmingham and Atlanta to Brunswick, Ga., where it has seaport terminals. It is further stated that Mr. Lamb will assume his new duties on August 1.

Mr. Lamb has been president of the Norfolk Southern since the reorganization of that property several years ago, and under his administration it has expanded into an extensive system. Recently it began construction of a western extension from Raleigh to Charlotte, N. C. His headquarters with the A., B. & A. will be in Atlanta.

It is further said that a successor to him has not yet been chosen by the Norfolk Southern, but that W. S. Tinsman, assistant to the president of the Rock Island system, Chicago, has been mentioned in conection with the position made vacant by his resignation.

Seaboard's Savannah Shops.

The Seaboard Air Line, according to a report from Savannah, Ga., has practically completed its roundhouse and shops immediately west of the city, and it is announced that they will be ready for use September 1. Machinery is now being installed. The buildings, which cost about $150,000, are fireproof, and take the place of the shops that were burned. Electric power will operate all the machinery under the individual drive plan. A turbine engine will produce power. The machinery was furnished, it is further stated, by the Niles-Bement-Pond Company, Dayton, O. Fairbanks, Morse & Co. of Chicago were the contractors. Reinforced concrete on concrete foundations was used.

Southern's New Freight Terminals.

The Southern Railway has completed its new freight terminals on Madison avenue, in Atlanta, between Mitchell street and the Peters street viaduct. They front on Mitchell street. There is a six-story building of 50 feet width and running 232 feet along Madison avenue toward the viaduct; also a three-story building of the same width and running from the Nelson street bridge to the viaduct, 464 feet. They are planned so that additional stories can be added as desired to accommodate increased traffic. The four upper stories of the higher building will be used for freight offices.

Carolina Power & Light.

The Carolina Power & Light Co. of Raleigh, N. C., has issued a statement showing that its gross earnings for the year ended June 30, 1912, were $404,601; operating expenses and taxes, $260,572; net earnings, $144,029; net income after payment of charges, $50,425. Last year the gross earnings were $343,513; net earnings, $131,357; net income, $57,222. The statement for June, 1912, shows gross earnings $32,682; net earnings, $10,310; net income, $2527. In the same month of last year the gross earnings were $27,900; net earnings, $8221; net income, $1610.

Virginia Railway & Power.

The yearly statement of the Virginia Railway & Power Co., which covers the 12 months ended June 30, 1912, shows gross earnings $4,558,193, increase as compared with last year $221,988; net earnings after payment of operating expenses $2,135,290, increase $140,760; gross income $2,204,448, increase $163,623; surplus after payment of taxes, licenses, interests, rentals and sinking funds $781,247, increase $137,364. The company operates street railways at Richmond, Petersburg, Norfolk and Portsmouth, Va., and in their vicinity.

Atlanta & Macon Electric Railway.

The Atlanta & Macon Railway Co. has practically completed its plans and surveys, and intends in the near future to begin construction of its proposed high-speed third-rail electric line between Atlanta and Macon, 88½ miles, via Jonesboro, Griffin and Forsythe. C. G. Young, Bankers' Trust Building, New York, has been appointed consulting engineer, representing the interests financing the railway. He recently appeared before the Georgia Railroad Commission in reference to the proposed issue of securities.

To back up an invitation to residence in Rock Hill, S. C., the officials and business men of that community are circulating a booklet full of attractive illustrations of the advantages there for business, manufacturing, education and farming.

TEXTILES

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the MANUFACTURERS RECORD. We shall be glad to have such matters at all times, and also to have any general discussion relating to cotton matters.

The Cotton Movement.

In the 330 days of the present season, according to the report of Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, the amount of cotton brought into sight was 15,316,147 bales, an increase over the same period last season of 3,613,562 bales. The exports were 10,336,588 bales, an increase of 2,931,102 bales. The takings were, by Northern spinners, 2,383,576 bales, an increase of 313,250 bales; by Southern spinners, 2,523,462 bales, an increase of 277,252 bales. To date the takings by Southern mills have been more than 50 per cent. of the takings of American-grown cotton by mills of this country.

Prendergast Cotton Mills.

The Prendergast (Tenn.) Cotton Mills, recently reported incorporated, has organized with the following officers: President, W. J. McLenden, Jr.; vice-president, W. S. Probst; secretary-treasurer, W. R. Fronebarger. This company will erect a 200x166-foot building costing $20,000 and install 10,000 spindles driven by electric power, the machinery to cost $80,000. It will employ 225 operatives. Mr. McLenden is the architect-engineer in charge.

The Rosemary Addition.

The Rosemary Manufacturing Co., Roanoke Rapids, N. C., will build a 60-foot extension to its weave shed (No. 1 mill) to provide space for additional looms heretofore announced. It is also adding cards and spindles in No. 2 mill, and will build a 100x100-foot structure for additional shop and supply-room facilities. This company is also considering the erection of another mill.

The Princeton Mill.

The Princeton Cotton Mill, Salisbury, N. C., has awarded contract at $8000 to D. K. Cecil of Lexington, N. C., for the erection of its building. In this structure, as recently announced, the company will install 3000 spindles and 36 looms, driven by electric power, on table damask production. This company is capitalized at $50,000.

The Glen-Lowry Addition.

The Glen-Lowry Manufacturing Co., Whitmire, S. C., is progressing with the erection of its additional mill heretofore anounced. Its completed building will be 440x130 feet, five stories high, equipped with 66,000 spindles and 1600 looms for manufacturing fine sheeting. This will be an increase of about 30,000 spindles and 700 looms.

The Lancaster Addition.

The Lancaster (S. C.) Cotton Mills will open bids on August 13 for erecting additional building of standard mill construction, J. E. Sirrine of Greenville, S. C., being the engineer-architect in charge. The company will add 50,000 spindles and about 1500 looms, as announced last week.

The Pickens Addition.

The Pickens (S. C.) Cotton Mills will build an 105x86-foot brick addition, costing $20,000, and has awarded the contract. The company will add 6000 spindles and 160 looms, costing $70,000, and has purchased this machinery. Its intention to increase equipment was mentioned last week.

Planning Big Addition.

The Greenwood (S. C.) Cotton Mills has increased capital stock from $500,000 to $900,000, as previously proposed, and is planning to build its 20,000-spindle and 500-loom addition.

Textile Notes.

The Blue Ridge Knitting Co., Hagerstown, Md., contemplates the erection of a branch hosiery mill at Boonsboro, Md.

The Albany (Ga.) Cotton Manufacturing Co. has been incorporated with a capital stock of $110,000 by W. W. Pace and associates.

The Guadalupe Valley Cotton Mills, Cuero, Tex., will add a 50x60-foot wing to main building for a clothroom and build a one-story 100x100-foot warehouse; both to cost $10,000.

The Young-Hartsell Mills Co., Concord, N. C., will build a 40x32-foot brick addition and has awarded the contract to the R. A. Young Construction Co. of Concord. The plant has 11,648 ring spindles, 200 broad looms, etc.

MINING

The Black Diamond's Yearbook.

To supply members of the coal trade with accurate information in condensed form is the purpose of the Black Diamond's Yearbook and Directory. The information contained in it has been derived from the reliable authorities and is presented in a style designed for ready reference. It gives the output of coal by States and by years for periods running back in some instances more than 90 years. Commercial movements of coal and coke over various railroads and by rivers and canals are set forth statistically, as well as coal used by steamships on the Great Lakes and at ocean ports. Sixteen pages are devoted to accurate coal analyses of the principal coals of the leading producing States, giving in addition the names of the beds and of the shipping points, and of the sizes of the coal. In alphabetical order are presented the facts about coaling points on the lakes, on the Atlantic coast and on the Gulf of Mexico, and by States are printed condensed facts about coal mine operators. These are the main features of the volume intended to relieve the coal men of the necessity of working through a mass of reports, documents and clippings to obtain information bearing upon their trade, and it will undoubtedly be given a wide reception. It is published by the Black Diamond Company, Manhattan Building, Chicago, and its price is $5.

To Develop 500 Acres.

The North Pratt Coal Co., North Birmingham, Ala., has been incorporated to develop 500 acres of land at Cardiff, and plans a daily output of 200 tons of coal. James Hillhouse, Sr., is president; Harry C. Hillhouse, secretary-treasurer; J. D. Hillhouse, manager.

During the past fiscal year 242 vessels from foreign ports and 237 from domestic ports were entered at Tampa, Fla., and 110 vessels cleared from there for foreign ports and 204 for domestic ports. Customs receipts at the port have increased from $636,062 in 1900 to $1,867,764 in 1912.

LUMBER

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

Big Louisiana Timber Purchase.

P. H. Downman, president of the Bowie Lumber Co., New Orleans, wires the MANUFACTURERS RECORD that his company has purchased the J. C. Reeves Cypress Lumber Co. properties in St. James, Assumption and Lafourche parishes, the price being $940,000. This purchase includes 18,000 acres of cypress land and a single-band mill at St. James. It is estimated to contain 120,000,000 feet of standing cypress timber, besides other species of trees. The Bowie Lumber Co. will operate the mill and develop the timber in connection with its other properties, and these include large mills at Bowie and Des Allemands.

Big Saw and Stave Mills.

The Southern Lumber & Manufacturing Co., Nashville, Tenn., writes to the MANUFACTURERS RECORD as follows:

"We have purchased in White county, Tennessee, 5400 acres of hardwood timber land, and expect to begin operating there at once with a band-saw mill capacity of 30,000 feet per day and a stave mill with capacity of 10,000 staves per day. We have already purchased a band-saw mill, and are only interested at this time in stave-mill outfit."

Will Add $50,000 Plant.

The Kimball Lumber Manufacturing Co., St. Louis, writes to the MANUFACTURERS RECORD as follows:

"We are to erect at Laark, La., near our sawmill, a modern planing mill and flooring mill, drykilns, etc., for hardwoods principally. We expect to spend about $50,000 on planing mill."

FOREIGN NEEDS

Machinery and equipment wanted abroad are mentioned in many letters received by the MANUFACTURERS RECORD, which is so widely read in foreign countries that we are in constant receipt of many letters from all parts of the world. For the benefit of our subscribers seeking foreign trade we publish the following extracts from recent letters:

Wanted in Poland.

Twardowski & Maliniak, 37 Jerozolimska, Warsaw, Poland, Russia, write to the MANUFACTURERS RECORD:

"We are anxious to obtain agencies in cotton for spinning and manufacturing, being in constant communication with the principal spinners in Poland and Russia on behalf of British and inland houses. Publish a special paragraph respecting this valuable new trade opening, as the Southern cotton mills (being recently established) require good new markets for their productions. Next to the cotton trade we have made leathers a specialty, and are in position to build up a considerable and satisfactory trade for American manufacturers of glazed kid and morocco, matt kid, patent and enamelled leathers, kid chevreaux, chromes, sheep, kangaroo, goat, grain, buff, splits and general shoe, harness and glove leathers of every description and quality, this line being handled here by prominent and rich firms only, with whom we are in close touch. Needless to say we mean a manufacturer who would not only think it worth while bothering about our market, but one who would give continual and personal attention to same and think it worth working well, and who would be able and willing to meet the competition in every respect. If they send us cutting to see the quality of the leathers they manufacture, along with rock-bottom export prices, including a moderate commission for ourselves, we might fully report on same and perhaps secure some good orders from first-class firms. There is a good trade to be done in American tinned meat and food choppers, hair cutters, cloth wringers, etc., but only if the respective manufacturers are willing to open direct accounts with the wholesale hardware firms in this country. We could very well handle any agency entrusted to us—as oils, greases, chemicals, etc., being anxious to develop the general trade relations existing between our countries, and therefore we solicit correspondence from American manufacturers in every line of trade, accompanied by samples or description of the products, along with prices and necessary particulars. Quotations to include f. o. b. New York, or, better still, c. i. f. any European of Continental port."

For Costa Rica Trade.

E. Runnebaum, Cartago, San Hose, Costa Rica, Central America, writes to the MANUFACTURERS RECORD:

"We are able to reach all parts of the country through our drummers. We are always anxious to obtain agencies under favorable conditions, but any order once accepted will receive careful attention. We make ourselves responsible for any loss that may happen on goods sold to a client and the same having received the merchandise cannot cancel the contract. We are willing to accord good terms to those who give us exclusive agencies, provided always that prices are such as to encourage purchasers. We would like to get in contact with people making or handling the following articles, in order to compare with those of others whom we already know: Cotton cloth, linen cloth, silk goods, woolens, blue and black stuffs for troops, fabrics for ladies and gentlemen (all colors), blankets of all kinds, laces and embroideries, mixed goods for soldiers, khaki for the same, zephyrs, socks and stockings, made up clothing and underwear (men and women), cutlery (smaller kind), umbrellas of all kinds, cinematographs and equipments. You can write us in English or Spanish, as you prefer. Please do not forget that we are ready to take agency for any kind of salable goods."

Exports of Manufactures.

According to the report of the bureau of statistics, Department of Commerce and Labor, the total value of manufactures exported in the fiscal year just ended was $1,021,753,918, of which $674,302,903 was the value of manufactures ready for consumption and $347,451,015 that of manufactures for further use in manufacturing. This does not include foodstuffs which have undergone a process of preparation or manufacture.

The principal articles forming this billion dollars' worth of manufactures exported are iron and steel, copper, mineral oil, manufactures of wood, leather and manufactures thereof, cotton manufactures, cars and carriages, automobiles, and paper and manufactures thereof. The total value of iron and steel manufactures exported in the year was $268,000,000.

The "Talbot," for the Baltimore, Chesapeake & Atlantic Railway Co., was launched last Saturday at the plant of the Maryland Steel Co. at Sparrows Point, Md. The new steamer is 200 feet long, with a maximum beam of 50 feet 6 inches.

MECHANICAL

High Power Electric Tools.

The Standard Electric Tool Co., Cincinnati, O., has developed and is now placing on the market a line of high power electric tools, two of which are shown in the accompanying illustrations. The drills as shown are ball bearing throughout.

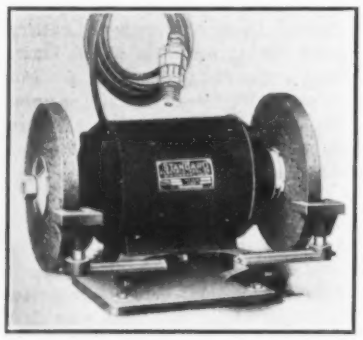


"STANDARD" ELECTRIC DRILL.

The gears are chrome nickel steel, case-hardened and mounted on dustproof ball bearings, packed with grease. The motors carry a winding which gives them an excess of power over rated capacity, effectually preventing overloads and burnouts. The idea of simplicity and strength is carefully followed, so that complicated and weak construction is avoided.

These drills are made in three-eighths inch and one-half inch sizes, for both direct and alternating current. The one-half inch direct-current drill will ream up to seven-sixteenths inch thickness of metal. These drills are designed for the hardest kind of constant service.

The grinders are made for tool posts,



"STANDARD" ELECTRIC GRINDER.

bench and parallel work. A special feature in connection with the tool post grinder is the base, which converts it into a bench grinder, by removing the slide and placing the motor in a groove in the top of the base. This double range of work increases the value of the tool, since by this combination it can be kept in constant service.

The motors in both drills and grinders are force ventilated by fans of special design. The armatures and poles are built up of soft electrical sheet steel, and are uniformly insulated. The grinders are furnished either with ball bearings or with phosphor-bronze bearings adjustable to wear.

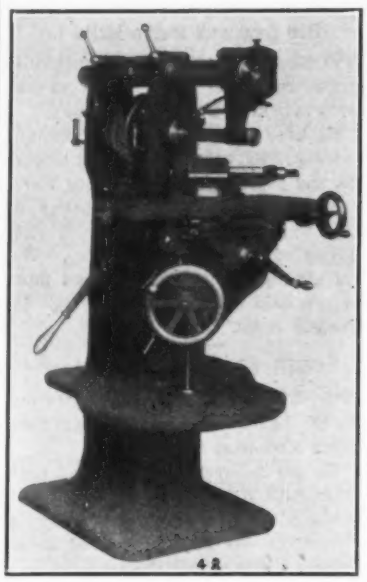
A New Hand Milling Machine.

The John Steptoe Shaper Co. of Cincinnati has recently placed upon the market the new hand milling machine shown in the accompanying illustration.

The table of this machine has the advantage of being operated by either a lever feed or a screw feed. The lever feed can be used by the operator for the rapid milling of small parts, and where it is necessary to have greater economy the screw feed may be used. The screw feed has a collar accurately graded in .001. This machine will also be made with a lever elevation to be operated by the knee.

The vise is somewhat different from that generally used on milling machines, in that it has a graduated base, so that it can be moved to any angle. The pan at the bottom prevents chips and oil from falling to the floor, and is also convenient as a tool rest.

The bearings are of high-grade phosphor-bronze, and are tapered and threaded on the ends to take up wear. They are kept thoroughly oiled by means of felt

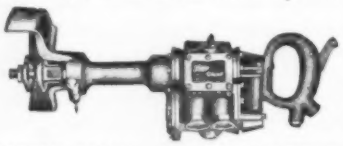


NEW HAND MILLING MACHINE.

oilers. The machine weighs approximately 1300 pounds crated ready for shipment. The makers state that they will eventually build this machine with a power feed to the table.

"Little Giant" Portable Pneumatic Grinder.

The accompanying illustration shows the No. 4 "Little Giant" improved portable pneumatic grinder manufactured by the Chicago Pneumatic Tool Co., Fisher Building, Chicago. In this type of grinder the grip handle is provided with a trigger, which, when pressed down, opens the throttle and is automatically held in that position until released by pressing button at the side. The operator is thus relieved of the strain of holding the trigger down with his thumb, and while holding the machine with one hand is able to start or stop it by the use of his thumb and fore-



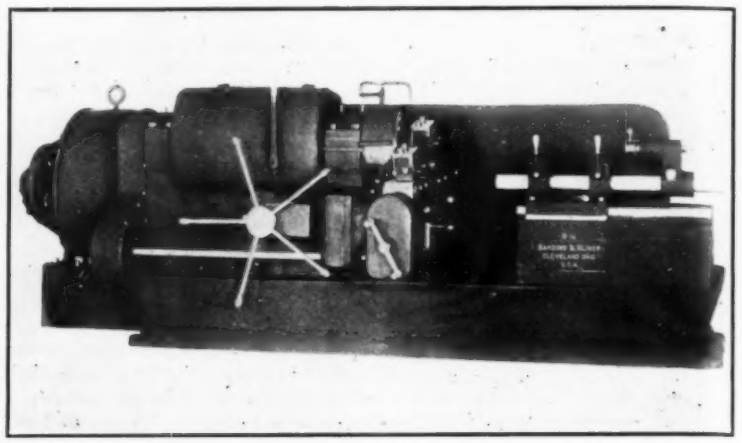
"LITTLE GIANT" PORTABLE GRINDER.

finger of the hand which is holding the machine.

The air hose is attached at the grip handle instead of entering at the side, thus reducing the weight and strain which must be borne by the operating hand. It also helps to balance the machine and to keep the hose out of the way of the work. After the throttle has been opened and the trigger set the operator is free to hold the grinder in any position required. The shield shown in the illustration affords ample protection. The speed of the wheel is 3000 revolutions per minute. The grinder weighs 20 pounds, and will accommodate an emery wheel eight inches in diameter by one inch thick.

Bordens & Oliver Cutting-Off Machine.

The "Bordens & Oliver" six-inch cutting-off machine shown in the accompanying illustration has been designed to fulfill the requirements of an efficient machine for cutting off material up to its capacity.



MOTOR-OPERATED CUTTING-OFF MACHINE.

It has spindle speeds varying from 20 to 152 revolutions per minute. The speed increments are 10 per cent., and are obtained by means of a geared head and the use of a Westinghouse 15-horse-power adjustable speed motor of 300 to 1200 revolutions per minute, operated with a drum controller having 16 points. This motor is the type S. A. variable-speed motor made by the Westinghouse Electric & Manufacturing Co., East Pittsburgh, Pa. The most economical cutting speed to suit the type of cutting tools used can be obtained at all times. The automatic chuck, the adjustable stop for the stock and the drum controller reduces the time of placing and removing the stock to a minimum. A special design of the tool slides prevents chips becoming caught and interfering with the operations of the tool.

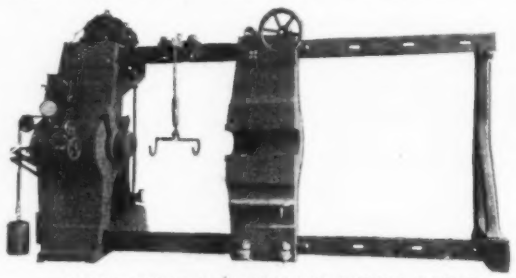
An oil pump gives a supply of oil to cool the cutting tools, thus increasing their capacity. A pan is so arranged as to catch the oil, thus reducing the waste.

The motor drive makes this an important unit which can be placed in a position in the shop to suit the system of routing material. The floor space required is five feet 6 inches by 14 feet, and the weight, including the motor, is about 16,000 pounds.

The design of the cutting-off tool slides is of particular interest. The support for these slides is fastened to the front of the head, which is widened on each side for this purpose. This support has openings between the slides and heads, allowing the chips to fall directly into the pan without interference. It also permits the shortening of the main bed, leaving an open space under and to the right of the cutting-off tool slide, making the removal of the chips more convenient. This machine is manufactured by Bordens & Oliver, Cleveland, Ohio.

A Motor-Driven Hydraulic Wheel Press.

A wheel press designed and made by E. R. Caldwell & Co., Bradford, Pa., to be used in car and locomotive works and in connection with mines, machine shops, foundries, cement plants, shipyards, steam and electric railways, lumber yards, coal yards, dock yards and other industrial plants using a considerable amount of machinery or rolling stock, is shown in the accompanying illustration. This wheel press is operated by a 7½-horse-power direct-current motor manufactured by the Westinghouse Electric & Manufacturing Co., East Pittsburgh, Pa.



MOTOR-DRIVEN HYDRAULIC WHEEL PRESS.

For convenience in handling heavy work, such as locomotive drivers and irregular-shaped work that cannot be rolled to and from the press, the upper horizontal parallel bar is not directly above the lower, but it has a slight angle which permits the work to be handled by an overhead crane. The plungers are operated by eccentrics on the back shaft driven by cut gears. The ram is drawn back automatically as soon as the pressure is shut off from the pumps.

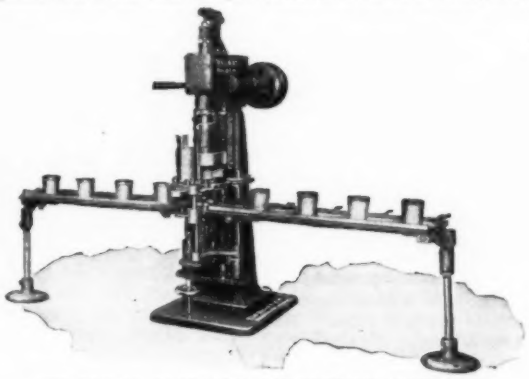
An extra valve to connect with the city water line is furnished when it is possible to have such connection. By opening this valve the steel-faced ram is moved out against the work more rapidly than would be done by the pump; the city water line valve is then closed, the pump valve opens and the plungers operate. The press is equipped with low and high-pressure pumps. The low pressure operates the ram up to a certain point with a greater speed than the high-pressure pump, and consequently increases the amount of work that can be handled by the use of the high-pressure pump alone. This low-pressure cylinder is arranged with a relief valve, so that the pump works until about 50 tons pressure is reached, when it automatically cuts out and the pressing operation is continued at a slower rate with the high-pressure pumps. The pump cylinders are cast from a semi-steel mixture, which gives them great strength and

insures them against leakage. The presses are provided with a safety valve to prevent overloading.

Machine for Double Seaming Cans.

The full automatic double seamer, shown in the accompanying illustration, has recently been designed and built by the E. W. Bliss Company of Brooklyn, N. Y. It is especially adapted for double seaming filled cans, seaming 25 to 45 ends a minute, the can remaining still during the double seaming operation. The size, No. 31-K, shown is especially adapted for Nos. 1, 2 and 3 fruit and vegetable cans and "halves," "flats" and "talls" in salmon canning.

The top spindle and mechanism are permanent. Adjustment for different heights of cans is made by a hand wheel at the base of the machine, which raises the entire lower structure, preserving correct alignment. The adjustment of roll carriers for different diameters of cans is made by means of separate sets of bushings for each diameter, and very fine adjustment for pressure by wedges. This method provides a positive and uniform pressure.



AUTOMATIC SANITARY CAN-CLOSING MACHINE.

Four double-seamer rolls are used in the machine, two for each operation. This feature permits of doing work twice as fast as if one roll for each operation were used. The two rolls operating simultaneously on opposite points of the cover equalize the pressure.

For feeding the can a continuous chain feed is employed. This feed delivers the can, filled or empty, as the case may be, to a device for holding and rounding the cans during double seaming. The covers are automatically fed from the cover magazine into the revolving dial, which dial operates in conjunction with the chain feed. As soon as the can has reached the holding device it is raised by the lower spindle; the cover in the dial opening is automatically placed in position on the can body, and the body, with cover in position, is forced against the chuck. The seaming rolls, now coming into action, seam the cover, after which they recede. The lower spindle then drops and the can is carried away by the feed. The operation of the double-seamer rolls, the bottom spindle and cover feed are all positive in action, and the cycle of operation is entirely automatic.

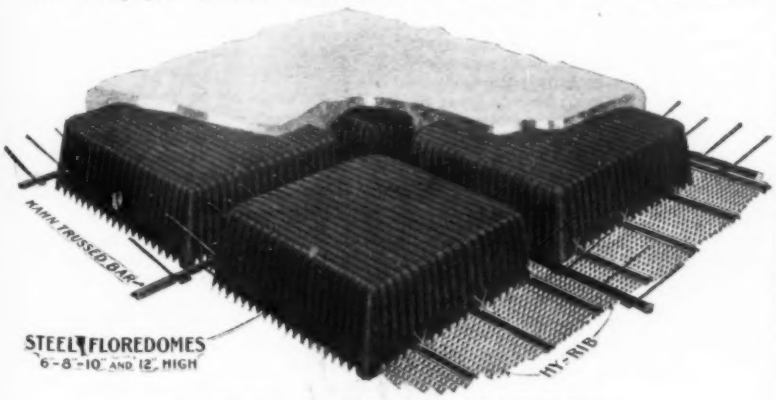
In connection with the raising of the lower spindle, the placing of the cover on the can body, the forcing of the can body with cover into position on the chuck, it should be remarked that, by means of a positively-actuated top knockout, pressure is brought to bear on top of the cover from the time it leaves the dial until it reaches the chuck. Again, when the lower spindle begins to recede, it is acting as a positive knockout.

Steel "Floredome" Construction.

The form of reinforced concrete construction which is being introduced by the Trussed Concrete Steel Co., Detroit, is shown in the accompanying illustration. is shown in the accompanying illstration.

Floredomes are rectangular, dome-shaped, steel tiles with only the bottom side open. They are manufactured by a process of cold pressing from rolled steel plates. The deep corrugations on each side give exceptional stiffness to the floredomes, in order to support the trucking loads coming on, and they also provide a bond between the domes and concrete and serve as additional reinforcement for the concrete. Reinforced concrete joists extend on all four sides of the floredome and carry the loads in two directions to the supports. The joists are deep and narrow, so as to require a minimum amount of material.

It is claimed for this form of construction that the great depth of a floor built with floredomes gives strength and rigidity, and that the dead-weight of the floor construction is reduced by the hollow space in the floredomes, resulting in a saving in the beams, columns and footings necessary to support the floor.



FLOREDOME CONCRETE FLOOR CONSTRUCTION.

Steel floredomes are water-tight, comparatively light, and not liable to breakage. Other advantages claimed for them is that they can be easily shipped, produce a saving in labor required, increased speed of construction and give a maximum economy of concrete and steel.

The floredomes are slightly tapered, so that they may readily be nested, with the resulting advantages in making shipments. A flat ceiling is obtained without any projecting beams or girders. The reinforced concrete girders extending around the four sides of the panel are built flush with the bottom of the concrete joist. Hy-Rib steel sheathing is secured in place to form the entire ceiling, and sets into the special notches provided for it in the floredomes, as shown in the illustration. The plaster is then applied directly to the under side of the Hy-Rib.

Only the simplest kind of centering and forms are required for floredome construction, as there are no beams to be provided for, and as the forms are covered with Hy-Rib, which provides the proper surface for plastering.

G-K Pipe Joint Compound.

A pipe joint compound possessing peculiar qualities as a cementing medium for jointing both tile and iron pipes is made by the Union Clay Products Co., 150 E. 36th street, New York, and is called G-K pipe joint compound. It is a chemical composition somewhat resembling vulcanized rubber in appearance, but is softer and more pliable. It is easily melted ready for pouring into the joints. It is claimed that after being poured it sets quickly without contraction, giving a permanent water-tight joint which adheres to the pipe with such tenacity that pressure does not break the bond, although the compound remains flexible and lends itself to deflections at the joints without cracking or leaking.



POURING G-K JOINT IN WATER.

Notwithstanding the appearance of this compound, the makers state that it contains no bitumen nor asphaltic products; that it will not become brittle nor disintegrate with age, and that it is not affected by water, sewage or soil, and that it is acid-proof.

The accompanying illustrations show the method of applying this material to a joint in water, and also its appearance when the pipe is removed from the water.

It is stated that during the two years in which G-K compound has been used over half a million linear feet of tile sewers have been jointed with it. It is found by actual tests to be applicable to a joint when submerged in water. Its elasticity is one of its good qualities, since a considerable deflection of the pipe line will not result in a leak.

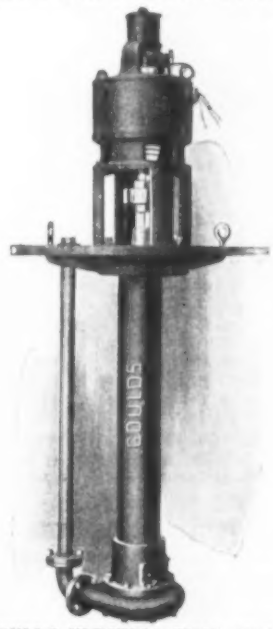


THE WATER-POURED JOINT.

The Union Clay Products Co. has published a pamphlet in which directions are given for using this compound, and in which other information is contained.

Goulds New Type Sump Pumps.

To meet the need for automatically-controlled pumps for draining basements, handling sewage, pumping out bilges and for use wherever liquids collect in a sump, the Goulds Manufacturing Co., Seneca Falls, N. Y., has developed a new centrifugal sump pump. It is made in types for service where electric current is available, also with pulley for belt drive by gasoline engine or other power.



GOULDS ELECTRIC SUMP PUMP.

The vertical electric motor, direct connected to Goulds single-side suction pump, is shown in the accompanying illustration. The pump is connected to a cast-iron pit cover by a rigid pipe column. The shaft is enclosed by the column, thus being protected from the liquid in the pit.

The electric motor is controlled by a starting device actuated by a float in the sump. When the liquid rises to a certain level and the float is lifted sufficiently to close the switch, the motor is started. It continues to operate until the sump is nearly empty, when the float drops back to the position for opening the switch.

The Chamber of Commerce of Amarillo, Tex., is circulating an attractively illustrated booklet telling of the growth of that flourishing community in the heart of the Texas Panhandle and of the opportunities for manufacturing and agriculture in its vicinity.

The American Road Builders' Association will hold its ninth annual convention at Cincinnati December 3 to 6, and in that connection there will be held an exhibition of machinery, materials and methods of road construction.

The National Department of Agriculture has published a bulletin by Albert T. Goldbeck and Frank H. Jackson, Jr., on the physical testing of rock for road-building, including the methods used and the results obtained.

Alfred W. Donovan of Rockland, Mass., is the author of a pamphlet entitled "Shoe Machinery Analyzed," in which are exhaustively discussed various phases of the question from the standpoint of the shoe manufacturer.

The United States Geological Survey has published a bulletin by G. W. Stose on the extensive deposits of salt and gypsum in the belt of the country 20 miles long in Washington and Smyth counties, Virginia.

Construction Department

TO OUR READERS!

In order to follow up properly the Construction Department items, please bear in mind the following statements:

EXPLANATORY

The MANUFACTURERS RECORD seeks to verify the items reported in its Construction Department by full investigation. It is often impossible to do this before the item must be printed or else lose its value as news, and in some items it is found advisable to make statements as "it is reported" or "rumored," and not as positive information. If our readers will note these points they will see the necessity of the discrimination. We are always glad to have our attention called to errors that may occur.

HOW TO ADDRESS

The name of one or more incorporators of a newly incorporated enterprise should always be shown on letter addressed to the official headquarters or to the town of the parties sought, as may be shown in the item. Sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. By following these general directions the postoffice will be enabled to deliver your mail promptly, although it is inevitable that some failure by the postal authorities to deliver mail to new concerns will occur.

WRITE PERSONAL LETTERS

In communicating with individuals and firms reported in these columns a letter written specifically about the matter reported will receive better and quicker attention than a circular. In most instances a return postal card or addressed and stamped envelope should be enclosed with letter.

In correspondence relating to information published in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

The Daily Bulletin of the Manufacturers Record is published every business day in order to give the earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southwest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is $25 per year. On all advertising contracts in the Manufacturers Record for three months or longer a subscription to the Daily Bulletin is included for the contract period.

BRIDGES, CULVERTS, VIADUCTS

Fla., Worthington Springs.—Bradford and Alachua counties will construct steel highway bridge oven Santa Fe River at Worthington Springs; chairman Alachua County Commissioners, Gainesville, Fla., receives bids until August 5. (See "Machinery Wanted.")

Md., Baltimore.—Board of Estimates will order election in November to vote on $2,000,000 loan for bridge (recently noted) across Spring Gardens, connecting Baltimore, Baltimore and Anne Arundel counties.

Md., Upper Marlboro. — Prince George's county will erect five reinforced concrete culverts and improve one mile of Suitland Rd. in Spaldings district; road directors received bids until August 1; Louis L. Dent, road engineer.

Miss., Corinth.—Corinth, Shiloh & Savannah Turnpike Co. awarded contract to Nashville Bridge Co. of Nashville, Tenn., to construct seven steel bridges. (See "Road and Street Work.")

Miss., Jackson.—Hinds and Rankin counties will construct steel bridge across Pearl River about two miles above Jackson; estimated cost, $50,000. Address Hinds County Commissioners at Jackson, or Rankin county Commissioners at Brandon, Miss.

Miss., Vicksburg.—Warren county will construct two steel trestles near Hankinson's Ferry Bridge; J. D. Laughlin, clerk, receives bids until August 5. (See "Machinery Wanted.")

N. C., Greensboro.—Guilford County Commissioners awarded contract to Owego Bridge Co., Owego, N. Y., at $5000 to construct proposed reinforced-concrete bridge across N. Buffalo Creek, on N. Elm St.; bridge 24 feet wide; three spans; four concrete pillars.

Okla., Guthrie.—City voted $25,000 bond issue toward proposed construction by Gulf, Colorado & Santa Fe Railway (F. Merritt, chief engineer, Galveston, Tex.) of viaduct over tracks and Cottonwood River; structure to be two blocks long and cost $150,000. (Recently mentioned.)

Okla., Muskogee.—Muskogee county will construct 12 bridges; W. E. Looper, County Clerk, receives bids until August 26. (See "Machinery Wanted.")

Okla., Norman.—City votes August 6 on issuance of $20,000 bridge bonds. Address The Mayor.

S. C., Anderson.—Blue Ridge Railway, J. R. Anderson, superintendent, will build steel trestle across Twenty-six Mile Creek to replace burned structure; cost $100,000.

S. C., Greenville.—Piedmont & Northern Interurban Electric Railway, Thos. B. Lee, chief engineer, Charlotte, N. C., awarded contract to Willard Boggs & Co., Spartanburg, S. C., for construction of abutments for bridges at South and Middle Tiger rivers. (These and other bridges recently noted to be erected.)

Tenn., Antioch.—Howard M. Jones, engineer, Room 407 Cole Bldg., Nashville, Tenn., receives bids until August 10 to construct bridge over Mill Creek near Antioch; 75-foot steel span with 110-foot concrete trestle approach. (See "Machinery Wanted.")

Tenn., Memphis.—Memphis Bridge & Terminal Co., W. S. Tinsman, president (representing Chicago, Rock Island & Pacific Railroad), and E. H. Crump, Mayor, reached agreement on construction of proposed free bridge; terminal company to make provision in its bridge plans for free wagonway, and in consideration of $50,000 from Shelby and Crittenden counties will build approaches for pedestrian and wagon traffic; city of Memphis or Shelby county will maintain east approach midway across bridge, and Crittenden county, Arkansas, or State of Arkansas will maintain west approach; estimated cost of bridge proper, is $4,320,000; $1,000,000 has been expended for terminal property and $450,000 will probably be expended under agreement; amended bill will be submitted to Congress.

Tex., Dallas.—J. F. Witt, County Engineer, is preparing plans for 60-foot concrete arch bridge over White Rock Creek on Richardson Rd., to cost $3500; bridge 120 feet long, with two 50-foot concrete arches over Prairie Creek on Seagoville Rd., costing $5000, and concrete girder 23 feet long on Miller's Ferry Rd. between Hutchins and Wilmer; bids received until July 27. (Call for bids lately noted.)

Va., Culpeper.—Culpeper county will construct three reinforced concrete bridges, 37 feet 10 inches, 54 feet ½ inch and 77 feet 7½ inches, across Indian Run, Cedar Run and Devil's Run, respectively; bids received until August 10; plans and specifications on file with Clerk of Circuit Court and P. St. J. Wilson, State Highway Commissioner, Richmond, Va. (See "Machinery Wanted.")

Va., Danville.—Pittsylvania county will construct bridge across Elkhorn Creek on road to Riceville, across Cane Creek on road from Danville to Milton, N. C., and double-track trestle at Fall Creek bridge in Bradley road near Danville; County Supervisors, Chatham, Va., receive bids until September 2 on both iron and wood structures. (See "Machinery Wanted.")

CANNING AND PACKING PLANTS

Fla., Miami.—Winfield & Elliott Packing Co., capital stock $5000, incorporated; T. A. Winfield, president; H. H. Elliott, vice-president; John Havenstreet, secretary-treasurer. (Recently reported to have leased Cook Bldg. and to equip for handling citrus fruits.)

Fla., Miami.—Bay Biscayne Canning Co. (C. T. McCrimmon and J. T. Daughtry) will establish cannery; 30x60 feet; two stories; will make specialty this season of guava products, manufacturing jelly, marmalades, canned guavas, cheese, etc.; plant 20 acres in guava trees this summer.

Fla., Wauchula.—Wauchula Citrus Growers' Association, F. M. Pringle, president, and W. W. Bateman, secretary-manager, purchased machinery for packing plant recently noted; daily capacity, 600 boxes citrus fruits; erect $800 wood frame building; day labor, superintended by manager.

Ky., Licking.—William H. McCarty will build cannery.

Miss., Lucedale.—K-C Lumber Co. awarded contract to C. D. McNease to erect plant for canning vegetables and syrup; 48x160 feet; mill construction; paper roofing; cost $7000; machinery purchased. (Recently noted.)

Okla., McCurtain.—C. W. Self is interested in establishment of canning plant. (See "Machinery Wanted.")

Tex., El Paso.—Robert M. McCandlish of Kansas City, Mo., engineer in charge, has prepared plans for packing plant; provides for two-story 90x43-foot stock exchange, 118x102-foot power plant, 100x67-foot ice factory, four-story 225x104-foot packing-house, 104x66-foot by-products plant (soap, cottolene and oil), 104x50-foot warehouse, stables, sheds, roundhouse, etc.; boning-room capacity, 600 beeves; cold storage room, 225x104 feet; buildings of fireproof construction; 1400 horse-power equipment for power plant, with space to double; ice factory capacity, 400 tons daily, with provision for increase to 900 tons; electric plant capacity, 600 kilowatts, with provision for increase to 1600; water station with pumps for 24-hour capacity of 5,000,000 gallons. (Joseph U. Sweeney, Rio Grande Bank Bldg., El Paso, recently mentioned as representing capitalists to build $800,000 plant.)

W. Va., Parkersburg. — Imperial Canning Co., capital stock $15,000, incorporated; Jas. S. McCluer, president; J. M. Caldwell, vice-president; S. M. Dils, treasurer; H. E. Dawson, secretary; operate factory with daily capacity of 1000 cans tomatoes.

PROPOSAL ADVERTISEMENTS
IN THIS ISSUE ARE
PUBLISHED ON PAGES 98 and 99
In order to secure best bids from leading engineers, contractors and investment houses, the proposal advertising columns of the Manufacturers Record are invaluable.
Rate 20 cents per line per issue.
When Proposal Advertisements cannot be sent by mail in time to secure insertion before date for opening bids, please wire advertisement copy collect by Day Letter
Proposal Advertising forms close Wednesday, 10 A. M.

CLAYWORKING PLANTS

Ark., Pine Bluff—Bricks.—Pine Bluff Brick Co., capital stock $10,000, incorporated by John B. Speers, Garland and Fonzo Brewster; Mr. Speers is president.

COAL MINES AND COKE OVENS

Ala., America. — Stith Coal Co. awarded contract through Charles F. Wheelock, engineer, Birmingham, Ala., for improvement at coal mines, including coal washer, gas motor and automatic cross-over dump; will soon award contract for screens; estimated expenditure, $20,000

Ala., Cardiff.—North Pratt Coal Co. incorporated; J. Hillhouse, Sr., president; Harry C. Hillhouse, secretary-treasurer; J. D. Hillhouse, Jr., superintendent; general offices at North Birmingham; develop 500 acres; daily output, 200 tons.

Ark., Greenwood. — Greenwood Smokeless Coal Co., capital stock $5000, incorporated by A. P. Gunther, A. N. Sicard and C. E. Wormer.

Ky., Anchor.—Dean Jellico Coal Co., J. M. Robinson, president, Barbourville, Ky., has purchased necessary equipment for mining plant recently noted (under Ky., Barbourville); will develop 250 acres; maximum daily capacity, 500 tons.

Ky., Hazard.—Jones Bros. Coal Co. will build mining plant.

Ky., Breathitt County.—Appleton & Sewall Co., New York, completed exploration for timber estimates (under direction of James W. Sewall, Old Town, Mo.) of 50,000 acres for Kentucky Coal & Timber Development Co. of Toronto, Canada. Mr. Sewall refers to T. S. McGrath, 38 S. Dearborn St., Chicago, Ill., for information, and Mr. McGrath wires Manufacturers Record: "Cruisers and engineers just off property; details not worked out; developments cover about 90,000 acres, including 100 miles standard gauge standard construction railway, modern mines, logging railways and mill; investment approximately $5,000,000; interested parties, D. H. Sill of New York and C. D. Warren, president of Traders' Bank, Toronto, Canada, and others." Lands are in Breathitt and Knott counties.

Ky., Pineville.—Magnet Coal Co., capital stock $23,000, incorporated by James Sharp of Williamsburg, Ky.; Isaac Glickman of Jellico, Tenn., and others.

Ky., Sturgis.—West Kentucky Coal Co. secured 150 acres coal land near Sturgis, and expects to sink new shaft.

Okla., McAlester.—Norris Coal Co., capital $5000, incorporated by G. K. Norris, J. W. Sittel and George M. Porter of McAlester.

Tex., Poteet.—Poteet Coal & Sand Co., capital stock $15,000, incorporated by D. W. McKay, R. P. Hare and W. P. Callaway; branch office and mines at Poteet; general office at San Antonio, Tex.

W. Va., Boone County.—Campbell, Brown & Davis, Huntington, W. Va., are making abstract to title of 60,000 acres coal and timber land to be purchased and developed by Philadelphia capitalists. Firm mentioned wires Manufacturers Record they are not at liberty now to state further facts.

CONCRETE AND CEMENT PLANTS

Tex., Dallas — Portland Cement. — Texas Portland Cement Co. contemplates alterations and improvements to plant in the fall; character and cost of machinery to be installed not determined.

W. Va., Grafton—Building Blocks.—C. E. Sinsel will build concrete-block factory; leased sand bank.

COTTON COMPRESSES AND GINS

Ala., Prichard.—Mobile Gin Co., Mobile, Ala., increased capital stock from $6000 to $25,000; will improve cotton gin.

Ala., Talladega.—T. S. Plowman is president of company organized with $25,000 capital stock to operate cotton compress; Leon G. Jones, secretary-treasurer. (Mr. Plowman and Mr. Jones recently noted interested in erecting compress.)

Ark., Conway.—Conway Compress Co., D. O. Horton, president (recently noted incorporated, $50,000 capital stock), awarded contracts for cotton compress machinery; proposals opened August 1 for erection of 200x400-foot $6000 mill-construction building.

Fla., Panama City.—Panama City Compress Co. incorporated; J. M. Phillips, president; N. R. Hays, vice-president; G. M. West, secretary and treasurer; capital stock, $33,000.

Ga., Albany.—Georgia Cotton Oil Co. will build cotton gin; cost $8000; contract awarded.

Okla., Pawnee.—Farmers' Gin Co., capital $7000, incorporated by Allen Daniels, T. S. Dove and B. J. Dove.

Tenn., Covington.—Farmers' Gin Co. will erect 40x60-foot, 28x40-foot, 24x40-foot and 18x40-foot buildings for cotton gin; ordinary construction; electric lighting; metal roof; cost $2000. (Recently noted incorporated with $5000 capital stock by J. O. McFadden and others.)

Tex., Bardwell.—Bardwell Gin Co., capital stock $12,000, incorporated by C. L. Sutton, W. S. Robertson and A. L. Whittington.

Tex., Elgin.—D. T. Uglebart, E. H. Perry and W. T. Caswell of Austin, Tex., and C. J. von Rosenberg of Lagrange, Tex., will build cotton compress; cost $50,000.

Tex., Norwood.—Norwood Gin Co., capital

stock $14,000, incorporated by Cliff Torrence, R. F. Brown and A. W. Warner.

Tex., Pharr.—Pharr Gin Co., capital stock $6000, incorporated by S. J. Smallwood, J. C. Kelly and G. P. Kelly.

COTTONSEED-OIL MILLS

Ga., Cordele.—Empire Cotton Oil Co. of Atlanta, Ga., will make improvements to plant; reported to include enlargement of present buildings, erection of fertilizer and mixing plant and warerooms and installation of sprinkler system for fire protection. (Recently reported to have purchased properties of Central Oil & Fertilizer Co. and to improve.)

Ky., Louisville.—Cottonseed Products Co., capital stock $50,000, incorporated by E. Rice and S. G. Lotta of Dyersburg, Tenn., and C. H. McLeod of Toptonville, Tenn.

Tex., Ennis.—Ennis Cotton Oil Co. will improve cottonseed-oil mill, expending $25,000; J. B. Caldwell, president; R. W. Getzendaner, vice-president; A. B. Caldwell, manager; Floyd W. Dunkerly, secretary-treasurer. (Recently reported incorporated with $100,000 capital stock.)

DRAINAGE AND IRRIGATION

Ark., Monroe County.—Commissioners Cypress Creek Drainage District, J. A. Blessing, president, Little Rock, Ark., will award contract August 26 to construct proposed drainage system; estimated cost, $325,000; district comprises 175,000 acres.

Ark., Paragould.—Swan Pond Drainage District No. 2 is being organized to reclaim about 15,000 acres of land. Address Drainage Commissioners.

Ark., Pine Bluff.—Jefferson County Circuit petitioned for organization of drainage district to reclaim 30,000 acres in Jefferson, Lincoln and Desha counties; J. W. Parkes of Pine Bluff to be engineer.

Fla., Kissimmee.—City will, it is reported, drain pond within city limits, requiring canal 2½ miles long, at cost $7500; N. C. Bryan, Mayor.

Fla., Orlando.—McCoy Land Co., E. A. McCoy, president, purchased 23,000 acres of land, partly covered with pine timber, from Prosper Colony Co.; proposes expending $100,000 in draining and improving property and will establish sawmills to cut timber; probably develop land for farming.

La., Alexandria.—Welman Bradford, Barrett Bldg., states he and his associates are completing preliminary estimates on devel opments previously described; general plan including water supply, by gravity, for irrigation of over 500,000 acres; also hydro-electric development of about 30,000 horsepower; reserve reservoirs of 850,000 acres feet of water; canal to be navigable for steel barges; electric trolley system operation.

La., Crowley.—Sixth Ward and Crowley Drainage District vote August 27 on $60,000 bond issue to complete drainage system in course of construction, in addition to $75,000 previously voted. Address Directors of District.

La., New Orleans.—Bayou Terre-aux-Boeufs Drainage District votes August 26 on $500,000 bond issue to construct drainage system; Adam Estopinal, president District Drainage Board.

Miss., Greenville.—Riverside Drainage Commission awarded contract to Central Dredging Co., Cleveland, O., for construction of main canal of previously described drainage in Washington county; main canal about 1,960,000 cubic yards; B. B. Gordon, chief engineer, Greenville.

Tex., Alvin.—Brazoria County Drainage District No. 3 will construct 111,056.39 cubic yards dry excavation (open ditches); 23,000 cubic yards wet excavation (improvement of sloughs); 8966 cubic yards dry excavation (open ditches in Alvin); 5900 feet storm sewer and 18 catch-basins; T. W. Carlton, secretary Drainage Commissioners, receives bids until August 15; A. R. Leckie, drainage engineer. (See "Machinery Wanted.")

Va., Portsmouth.—Board of Drainage Commissioners, Butts Road Magisterial District, R. R. Randolph, chairman, will construct drainage canal and subsidiary ditching in District No. 1; bids opened August 10; recently noted to drain 5000 acres of land. (See "Machinery Wanted.")

ELECTRIC PLANTS

Ala., Flat Rock, P. O. Fabius.—Flat Rock High School will install electric-light plant and water-works; power from Flat Rock Creek. (See "Schools.")

Ark., Ashdown.—City is having plans prepared by Nagel & Peterson of Muskogee, Okla., for electric-light plant.

Ark., Brinkley.—Brinkley Water & Light Co. incorporated by J. E. Thompson and others. (See "Water-works.")

Ark., Gravette.—City engaged Nagel & Peterson of Muskogee, Okla., to prepare plans for proposed electric-light plant; $21,000 bond issue voted.

Fla., Winter Garden.—Winter Garden Light & Water Co. will erect plant; frame; main portion 30x72 feet, of which 28x30 feet will be two stories and be equipped with ice machinery; 30x30-foot building will be equipped with electrical machinery; estimated cost, $20,000.

Ky., Corydon.—City votes in September on $10,000 bond issue to construct electric-light plant. Address The Mayor.

Ky., Glasgow.—W. F. Richardson, P. W. Holman and others purchased electric plant and will install additional machinery.

Md., Baltimore.—Board of Estimates will order election in November to vote on $2,000,000 loan for extension of electrical subway system.

Md., Security.—Hagerstown & Frederick Power Co. awarded contract to Hunter B. Crimm of Winchester, Va., to build power-house; require 600,000 bricks; cost $40,000.

Miss., Pontotoc.—L. E. Price of Utica, Miss., purchased local electric-light plant from J. W. Bell; secured new franchise and will improve system; install ice plant.

Mo., Fredericktown.—City votes on $35,000 bond issue to construct electric-light plant. Address The Mayor.

Mo., Stewartsville.—City granted franchise to J. B. Reesaman of Mayville, Mo., to construct electric-light system. (Recently mentioned.)

Mo., Sedalia.—C. E. Murray, R. A. McGregor and J. E. Harsh incorporated light and traction company with $1,500,000 capital stock.

N. C., Hendersonville.—Laurel Park Street Railway Co., W. A. Smith, president, will build power-house.

Tex., Brownwood.—Interests identified with Texas Power & Light Co. acquired electric-light, power and gas properties of Brownwood Gas & Electric Co.; electric-light and power properties of Paris Light & Power Co., Paris, Tex., and electric-light and power properties of Gainesville Electric Co., Gainesville, Tex.; all contemplated to be taken over and operated by Texas Power & Light Co. in connection with other properties. (Texas Power & Light Co. recently noted incorporated, capital stock $13,000,000, to acquire and build various described plants; principal office at Dallas, Tex.)

Tex., Cumby.—City Commissioners granted franchise for electric-light plant.

Tex., Gainesville.—Texas Power & Light Co., Dallas, Tex., contemplates acquisition and operation of Gainesville Electric Co.'s plant. (See Tex., Brownwood.)

Tex., Paris.—Texas Power & Light Co., Dallas, Tex., contemplates acquisition and operation of Paris Light & Power Co.'s properties. (See Tex., Brownwood.)

Va., Covington.—Covington Machine Co. (W. A. Rinehart and others) purchased for $39,200 Covington electric-light plant; will erect new station and install machinery.

Va., Waynesboro.—Staunton Lighting Co., Staunton, Va., will construct transmission system to furnish power to Riverside Light & Power Co.; not yet ready for bids.

W. Va., Lester.—Lester Light & Power Co., capital $10,000, incorporated by E. M. Canaday, J. Levi Cook, J. B. Canaday, J. Q. Brooks and G. Y. Kelly of Lester, W. Va., and James Bryson of Bryson, W. Va.; will establish electric plant costing $10,000; may build power-house or transmission line to bring electricity from power plant of nearby mine; probably open construction bids late in August. Address Gage Y. Kelly. (See "Machinery Wanted.")

W. Va., Wayne.—Wayne Light, Heat & Water Co., capital $30,000, incorporated by B. J. Prichard and E. R. Prichard of Wayne, J. R. Miller of Eustis, Fla.; H. H. Jones and I. B. Reed of Crafton, Pa.

FERTILIZER FACTORIES

Ala., Hartselle.—Hartselle Fertilizer Co., capital stock $15,000, incorporated by John A. Bell, A. C. Read, Hamilton Parks and others.

Fla., Gosling (not a postoffice).—Florida Freezer & Fertilizer Co., Douglas E. Austin, secretary-treasurer, Jensen, Fla., awarded contract to M. J. Palson, Gloucester, Mass., to construct fertilizer, ice and cold storage plant; main building, 80x300 feet; other building, 80x100 feet; four stories. Address Mr. Palson, who is also vice-president of company. (Recently noted.)

Fla., Miami.—Miami Fertilizer Co., capital stock $10,000, incorporated; Gaston Drake, president; Walter E. Flanders, vice-president; Ernest W. Bebinger, secretary and treasurer.

Ga., Sale City.—Sale City Gin & Manufacturing Co. incorporated by F. S. Perry, A. T. Jones and others; will establish fertilizer factory.

N. C., James City.—Virginia-Carolina Chemical Co. (main office, Richmond, Va.) awarded contract to Rhodes & Underwood of Newbern, N. C., to rebuild plant previously reported burned.

N. C., Laurinburg.—John F. McNair and others (recently noted to establish fertilizer and acid phosphate plant) will let contract within 10 days to erect building; 126x363 feet; mill construction; plans by P. S. Gilchrist, Charlotte, N. C.; machinery includes mills, screens, mixers, bagging machines, dynamos, etc. (See "Machinery Wanted.")

N. C., Washington.—Washington Lime Co., capital $50,000, incorporated by G. A. Stancil, N. B. Dawson and J. D. Armstrong.

Va., Lynchburg.—Mecklenburg County Farmers' Co-operative and Educational Union will build fertilizer mixing plant in Mecklenburg county; J. J. S. Cook of Lacrosse, Va., and C. S. Gordon of Baskerville, Va., appointed committee on location.

FLOUR, FEED AND MEAL MILLS

Mo., St. Louis.—F. W. Gocke Dried Feed Co. will rebuild plant; cost $75,000.

N. C., Mocksville.—J. P. Green Milling Co., capital $25,000, incorporated by J. P. Green, M. F. Booe and T. P. Foster.

S. C., Darlington.—W. D. Coggeshall states will erect small feed plant; $5000 brick building with concrete floor; install elevators, conveyors, food grinders, crushers and mixers. (See "Machinery Wanted.")

FOUNDRY AND MACHINE PLANTS

Ky., Covington—Iron Works.—Stewart Iron Works Co., Cincinnati, O., advises it is not yet ready to announce plans for reconstruction of burnt plant; approximate cost of new improvements and equipments, $300,000; bids closed July 30.

Ky., Louisville—Flour Machinery.—L. R. Veatch, 1st and A Sts., will enlarge plant for manufacturing and repairing flour-milling machinery; install additional equipment.

Md., Baltimore—Typecasting Machines.—Ad-Atype Matrix Co., capital stock $45,000, incorporated by Douglas H. Thomas, Jr. (of Parker, Thomas & Rice, 1109 Union Trust Bldg.), John E. Hanrahan and J. Q. H. Smith.

Mo., Joplin—Iron.—Industrial Iron Works of Clinton, Mo., contemplates establishing plant.

Mo., St. Louis—Heating Appliances.—Missouri Gas Heater & Appliance Co. incorporated by James J. Rohan, Hugo F. Urbauer and Robert A. Crabb; manufacture boilers, economizers, etc., for heating, etc.; capital stock $25,000.

N. C., Charlotte—Textile Machinery.—Southern Spindle & Flyer Co. contemplates increasing capacity of plant.

Okla., Tulsa—Stoves.—Tulsa Stove & Foundry Co., capital $50,000, incorporated by A. C. Spitznagel, F. Prentice of Tulsa and H. E. Bartlett of Sand Springs, Okla.

Tenn., Johnson City—Machinery.—Johnson City Foundry & Machinery Co., capital stock $10,000, incorporated by S. C. Williams, A. B. Croud, G. T. Lee and others.

Va., Norfolk—Fuel-oil Equipments.—Mircks Fuel Oil Equipment Co. expects to increase capital.

Va., Richmond—Iron.—Radford Iron Co. incorporated; Stuart Wood, president; R. Francis Wood, secretary-treasurer; both of Philadelphia, Pa.

W. Va., Parkersburg—Machinery.—Valley Machine Co., capital stock $150,000, incorporated by Ferguson O'Connor, R. G. Stiles, John Marshall and others.

GAS AND OIL DEVELOPMENTS

Ky., Salyersville—Gas.—Salyersville Gas Co. incorporated by M. E. Moore, S. A. Moore, J. D. Henkstra, F. J. Owen and A. J. Peck, all of Charleston, W. Va.; secured 20-year municipal franchise; gas to be piped from wells on Burning Fork, 4½ miles from Salyersville. (Recently mentioned.)

Miss., Sardis.—Panola Oil Co., capital stock $25,000, incorporated by Edwin Wright, A. W. Shands and P. D. Hays of Sardis and F. M. Norfleet of Memphis, Tenn.

Okla., Bartlettsville.—Oktaha Company, capital stock $25,000, incorporated by L. A. Rowland, J. D. Talbott and Walter Coombs.

Okla., Tulsa.—Beaver Oil & Gas Co., capital $10,000, incorporated by A. E. Watts, H. B. Frederick and E. L. Talman.

Tex., Fort Worth.—Fort Worth Oil & Gas Co., capital stock $30,000, incorporated by W. H. Ward, John Patrick, J. S. Hanford and A. D. Lloyd.

W. Va., Charleston.—Jarrett Oil & Gas Co., capital $50,000, incorporated by F. J. Hill, F. H. Harless, H. A. Russell, C. F. Williams and E. S. Rock.

W. Va., Charleston.—Elk River Coal Oil & Gas Co., capital stock $40,000, incorporated by U. B. Atkinson, C. M. Alderson, D. L. Salisbury and others.

W. Va., Glen Jean.—Pocahontas Oil & Gas Co., capital stock $100,000, incorporated by W. E. Deegans, William Brown, John Faulkner, K. A. Burgess and others.

W. Va., Charleston.—Kentucky & West Virginia Oil & Gas Co. secured several thousand acres oil and gas land in Kanawha and Putnam counties, West Virginia, and is negotiating for 2000 acres in Kentucky and several hundred acres in Oklahoma; John Hetterman, president; William Reudeman, first vice-president, and Robert A. Spencer, second vice-president, both of Louisville, Ky.; R. H. Yates, secretary, and J. N. Carnes, treasurer, both of Charleston; capital stock, $1,000,000. (Recently reported incorporated.)

ICE AND COLD-STORAGE PLANTS

Fla., Gosling (not a postoffice).—Florida Freezer & Fertilizer Co., Douglas E. Austin, secretary-treasurer, Jensen, Fla., awarded contract to erect ice and cold-storage plants, etc.; recently reported to have capacity for 30 tons of ice and 150,000 barrels cold storage. (See "Fertilizer Plants.")

Fla., Winter Garden.—Winter Garden Light & Water Co. will build ice plant. (See "Electric Plants.")

Ga., Augusta.—S. M. McKendree of Spartanburg, S. C., and others will establish ice plant; capacity 30 tons; estimated cost $30,000.

Miss., Pontotoc.—L. E. Price of Utica, Miss., will install ice plant. (See "Electric Plants.")

N. C., High Point.—John J. Mines of Reidsville, N. C., and associates will build $40,000 ice plant.

N. C., Raleigh.—City will install refrigerating plant, etc. Address The Mayor. (See "Miscellaneous Enterprises.")

S. C., North Augusta.—Hellmen Ice & Coal Co., capital stock $25,000, incorporated; Charles Warren Davis of Augusta, Ga., president; John F. Holmes, vice-president; W. R. Dawson, secretary-treasurer.

IRON AND STEEL PLANTS

Tex., Penn City—Iron Furnaces, Industrial City, etc.—Rumor, as yet unconfirmed, states as follows: Edw. F. Goltra of St. Louis, Mo., George M. McIlheny of New York, J. M. West, S. F. Carter and others of Houston, Tex., will purchase 4000 acres on Houston ship channel at $300,000; will organize Southwestern Steel Corporation, capitalized at $10,000,000, to develop purchase for industrial city, construct several iron furnaces, purchase and develop iron land claimed to contain 200,000,000 tons of ore, etc.; form subsidiary corporation, known as Southwestern Steel Development Co., to have charge of land developments; will change name of Penn City to Steel City; cost of industrial city developments estimated at $5,000,000; cost of ore land estimated at $5,000,000.

LAND DEVELOPMENTS

Ala., Grand Bay.—Grand Bay Investment Co. organized with F. K. Jackson, president, Evanston, Ill.; B. C. Curtis, secretary; E. A. Musgrove, treasurer, both of Chicago, Ill.; purchased 2000 acres in Mobile county and will plant orchards; each of 15 stockholders will take over 20 acres for private use; in addition, company will develop 300 acres in diversified orchards.

Ala., Greene County.—J. O. Thompson and J. E. Penny, Birmingham, Ala., purchased 6000 acres land; will divide into small alfalfa farms and colonize.

Ala., Mobile.—Glendon Land & Development Co., capital stock $2400, incorporated by T. A. Yeend, W. A. Yeend, E. J. Yeend and M. M. Bogue.

Ala., Tolnette.—Tolnette Land Co. organized with S. A. Wilson president and A. H. Andrews secretary-treasurer; purchased 2000

acres cut-over timber land near Toinette, will divide into 40-acre tracts and colonize.

D. C., Washington.—Real Estate Trust Co. purchased 27 blocks northeast of 15th and H Sts. N. E. for $450,000; will expend about $100,000 in improvements, subdivide and sell; no contracts; work by force account.

Fla., Arcadia.—Arcadia Land & Improvement Co., capital $60,000, incorporated; D. W. Stevenson, president; E. W. Stevenson, first vice-president; C. H. Kreigh, second vice-president.

Fla., Bonifay.—Lindsey Land Co. incorporated; B. H. Lindsey, president and treasurer; E. E. Mack, vice-president; J. McLaughlin, secretary; capital stock $90,000.

Fla., Cottage Hill. — Pensacola Seed & Nursery Co., capital stock $25,000, incorporated; W. S. Vincent, president-treasurer, Lansing, Mich.; W. S. Reeve, vice-president, Pensacola, Fla.; S. D. Beringer, secretary, Cottage Hill.

Fla., Miami. — Louis Flipse, Milwaukee, Wis., purchased 80 acres land and will develop for grapefruit grove.

Fla., Panama City.—St. Andrews Bay Farm & Fruit Co, capital $10,000, incorporated; A. O. Chandlee, president; C. M. Chandlee, secretary; T. W. Helm, vice-president and treasurer.

Ga., Atlanta.—J. Hope Tigner and Hal L. Johnston of Edwin P. Ansley Agency purchased from Carter Realty Co. and others of Lakeland, Fla., three-fourths interest in 30,000 acres land in Clinch, Echols and Coffee counties; will subdivide and sell to settlers.

Ga., Oglethorpe.—H. C. Bagley and associates will incorporate company with $250,000 capital stock to develop 3200 acres farming land; plant 1000 acres in paper-shell pecans, and, in addition to general farming, operate stock farm and dairy.

Ga., Valdosta.—City voted $5000 bond issue to enlarge and improve cemetery; John T. Roberts, Mayor.

La., Lake Charles.—Interconstal Land Co., capital $200,000, incorporated; James Gardiner, president; S. M. Lyons, vice-president; J. T. Landry, secretary; C. O. Noble, treasurer.

Miss., Wade.—Copeland Bros of Colon, Mich., purchased land near Wade and will establish a flat farm; will plant 100 acres this fall in spearmint and peppermint, and from these essential oils of mint will be extracted.

N. C., Scotland County.—D. L. Gore of Wilmington, N. C., advises Manufacturers Record he has sold Richmond & Scotland county land to Ralph W. Page of Aberdeen, N. C.; property comprises 27,000 acres, and price was reported as $250,000; report from Charlotte states Frederick T. Gates, 26 Broadway, New York, is the purchaser. (Lately mentioned.)

N. C., Winston-Salem.—City voted $15,000 bond issue for parks; R. I. Dalton, Mayor. (Recently mentioned.)

Tex., El Paso.—Morningside Realty Co., capital stock $30,000, incorporated by E. S. Newman, J. H. Nations, J. C. McNary and others; will develop 500 acres land; divide into building lots.

Tex., Vernon.—W. O. Richards, Paducah, Tex., has, it is reported, sold 80,000-acre ranch to Boston (Mass.) capitalists for $1,500,000, who will divide property into farms for development.

Va., Grottoes.—Virginia & Vermont Land & Development Co., capital stock $15,000, incorporated; J. N. Bishop, president; R. T. Dabney, secretary; A. S. Baird; all of New York.

W. Va., Berkeley Springs.—Fruit Ridge Farms Co., capital stock $50,000, incorporated by J. Hammond Siler, G. W. Biser, B. L. Graham and others.

W. Va., Huntington.—Park Land Co., capital $20,000, incorporated by W. A. Lucas, H. C. Hales, M. P. Wiswell, Blair P. Wilson and J. F. Thompson.

LUMBER MANUFACTURING

Ala., Flat Rock, P. O. Fabius.—Flat Rock High School will establish saw and planing mill. (See "Schools.")

Ala., Birmingham.—Empire Lumber Co., capital stock $40,000, incorporated; W. C. Hamilton, president; E. B Crawford, secretary-treasurer; Eugene Fies, vice-president.

Ark., Humnoke (not a postoffice).—Richland Lumber Co., E. H. Elsberry, president, Box 524 Pine Bluff, Ark., purchased 3200 acres hardwood timber recently noted; erecting sawmill of 30,000 feet daily capacity; machinery purchased; erection of building and installation of machinery by company force; office at Humnoke; sales office, Pine Bluff.

Ark., Petit Jean (not a postoffice).—Colorado-Arkansas Land & Lumber Co., George N. Goodier, secretary-treasurer, Dardanelle, Ark., will incorporate company to manufacture hardwood lumber at Petit Jean, on main line of Rock Island Railroad.

Ark., Sparkman.—J. G. Clark of Arkadelphia, Ark., wil establish sawmill.

Fla., Apalachicola—Pulp Wood, etc.—Gulf Pulp Wood Co. incorporated to manufacture pulp wood, lumber, etc.; B. H. Beverley, president; H. D. Marks and F. F. Ferris, vice-presidents; F. B. Wakefield, treasurer, all of Apalachicola; J. L. Anderson, secretary, Atlanta, Ga.; capital stock $100,000.

Fla., Caryville.—Henderson-Waits Lumber Co. incorporated with Fox Henderson, president, Troy, Ala.; W. O. Waits, vice-president and genral manager; J. D. Henderson, secretary-treasurer, both of Sanford Ala.; purchased plant of George E. Wood Lumber Co. at Caryville (as lately stated), consisting of sawmill, planing mill, dry kilns, etc., and will remodel; make sawmill double circular and install 60-inch gang; install fast-feed machinery in planing mill; increase daily capacity of plant to 150,000 feet; purchased 21,000 acres timber land in Washington county and timber on 14,000 acres; Henderson-Waits Company is branch of Henderson Lumber Co. of Sanford, Ala.

Fla., Orlando.—McCoy Land Co., E. A. McCoy, president, will build sawmills and develop timber land. (See "Land Developments.")

Fla., Orlando.—Pawalee Lumber Co. incorporated by L. L. Payne, T. P. Warlow and A. L. Beck.

Fla., Titusville.—C. B. Matson of Ferguson, Iowa, will, it is reported, build sawmill at Indian River Park.

Kentucky.—Appleton & Sewall Co., New York, completed exploration for timber estimates (under direction of James W. Sewall, Old Town, Me.) of 50,000 acres for Kentucky Coal & Timber Development Co. of Toronto, Canada.

Ky., Perry County. — Broadhead-Garrett Company, Clay City, Ky., purchased timber land in Perry county and will develop; remove sawmill from Clay City.

La., Laark.—Kimball Lumber Manufacturing Co., St. Louis, Mo., advises Manufacturers Record of intended erection of planing mill, flooring mill, drykilns, etc., principally for hardwoods; construction to begin about August 1; estimated cost of planing mill, $50,000.

La., Lake Charles.—Swift Land Co., capital stock $200,000, incorporated with D. R. Swift, president; H. W. Lanz, vice-president; T. G. Trotti, secretary-treasurer.

La., St. James.—Bowie Lumber Co., R. H. Downman, president, New Orleans, La., purchased J. C. Reeves Cypress Lumber Co. properties at $940,000; includes 18,000 acres cypress lands and single band mill; engineers estimate there is 120,000,000 feet cypress timber on lands, besides other species of trees; purchaser will develop in conjunction with properties it already owns.

Miss., Columbia.—J. J. White Lumber Co., McComb, Miss., will, it is reported, build sawmill with daily capacity of 125,000 feet.

Miss., Stonewall.—J. W. Ware of Enterprise, Miss., will establish sawmill and develop timber land; purchased plant.

S. C., Conway.—Trexler Lumber Co. will rebuild sawmill burned at loss of $60,000.

S. C., Summerville.—Pine Lumber Co. increased capital stock from $500 to $10,000.

Tenn., De Rossett.—Southern Lumber & Manufacturing Co., Nashville, Tenn., has purchased band-saw mill recently noted; daily capacity, 30,000 feet of timber; also erect stave mill; daily capacity, 10,000 staves; has 5400 acres of hardwood timber land. (See "Machinery Wanted.")

Va., Bristol. — Wilkinson-Matthews Company, capital stock $50,000, incorporated; J. H. Matthews, president, Damascus, Va.; George M. Warren, secretary; E. H. Wilkinson, vice-president, both of Bristol.

METAL-WORKING PLANTS

Ala., Birmingham—Culverts, etc.—Birmingham Metal Products Co., capital stock $2000, incorporated; J. H. Dean, president; Solon Jacobs, secretary; H. O. Barrow, treasurer; has initial plant and will enlarge.

Md., Baltimore—Tin Products, etc.—Steel & Tin Products Co. (in May noted incorporated with $9000 capital stock by Ernest L. Dinning and associates) has atout completed installation of equipment at plant, 239 Forrest St.; all machinery supplied.

Mo., St. Louis—Automobile Chains.—Pugh Auto Chain Co., capital stock $5000, incorporated by Arville A. Vancleave and C. C. Knight of St. Louis, John Schulz of Webster Groves, Mo., and others.

Mo., St. Louis—Screens and Doors.—Western Screen & Door Co., capital $10,000, incorporated by E. M. Meck, M. L. Inglish and E. C. Snell.

Okla., McAlester—Beds.—McAlester Metal Bed Co., capital stock $125,000, incorporated by David J. Miller, William H. Fuller and O. C. Jacobs; will acquire plant of Ohio Iron & Brass Bed Co. and will build shipping-room 50x125 feet.

MINING

Ala., Mobile—Gravel.—Mobile Gravel & Material Co., capital stock $5000, incorporated by T. A. Yeend, W. A. Yeend, James Keoughan, E. W. Gainor and others.

Mo., Joplin—Concentrating Plant.—Leo H. Beckman, Harry Linderman and others will build concentrating plant equipped with electric motors.

Okla., Oklahoma City—Copper.—Oklahoma Copper Development Co., capital $10,000, incorporated by A. C. Enochs, C. E. Thorne, Curtis Branson, J. U. Hatcher and others.

Tenn., Chattanooga—Limestone. — Catoosa Limestone Products Co., capital stock $25,000, incorporated by A. P. Gaines, J. L. Davies, F. C. Davies and others; acquired limestone quarry and plant in North Georgia; offices in Chattanooga.

Va., Lynchburg — Slate. — Snowden Slate Corporation chartered; capital $50,000; Charles E. Heald, president; H. P. Adams, vice-president; T. B. Christian, secretary and treasurer; develop 4000 acres.

Va., Orange County—Talc and Soapstone. Charles H. Hurcamp, Fredericksburg (not Boscobel as recently stated), Va., will develop 1000 acres or more of soapstone deposits in Orange county.

Va., Lynchburg—Iron, etc.—Piedmont Manganese Corporation, R. R. Livingston, president, 2 Rector St., New York, has purchased, it is reported, 8000 acres of coal, iron and limestone property in Botetourt county, including the old Catawba Furnace.

MISCELLANEOUS CONSTRUCTION

Ark., Ashdown.—Orton Levee District will complete levee, requiring placing 216,000 cubic yards earth; directors, J. J. Battle, president; receive bids until August 8. (See "Machinery Wanted.")

La., Morganville—Levee.—Red River, Atchafalaya & Bayou Boeuf Levee Board, E. G. Richard, president, Alexandria, La., invites bids until noon August 7 to construct Bayou des Glaizes levee from Long Bridge to Coco Point in Avoyelles Parish; about six miles of levee containing 150,000 cubic yards earth; deposit of $450 to accompany each bid. (See "Machinery Wanted.")

La., New Orleans.—Atchafalaya Basin Levee district, V. M. Lefebvre, president, invites bids until noon August 6 to construct Buena Vista levee, about 110,000 cubic yards; also Lower Torras levee, about 85,000 cubic yards. (See "Machinery Wanted.")

La., New Orleans — Levee. — Government will construct 370,400 cubic yards earthwork in Lower Tensas and Lafourche districts on east bank of Mississippi River from Vicksburg to Bayou Sara and on Atchafalaya River; C. O. Sherrill, engineer, United States Engineer Office, Metropolitan Bank Bldg., receives bids until August 8. (See "Machinery Wanted.")

La., New Orleans — Levee. — Atchafalaya Basin Levee Board, V. M. Lefebvre, president, awarded contract to Hearin & Ryan to close crevasse in McCracken Bayou Levee on Atchafalaya River; estimated to require 90,000 cubic yards of earth. (Call for bids lately noted.

Miss., Meridian—Levee.—Dabney Engineering Co., 81 Porter Bldg., Memphis, Tenn., recommends construction of levees as follows: Enlarging west levee, 30,000 cubic yards at $15,000; new cross levee, embankment and muck ditch, 35,000 cubic yards at $10,000; reinforced concrete spillway with two sluice gates and adjustable flash boards, $12,500; enlargement of south levee, 700 linear feet, 10,000 cubic yards, $5000; wave revetment, 1100 linear feet, $4000; total cost $46,500.

S. C., Beaufort—Dock.—Beaufort County Commissioners awarded contract to R. R. Legare of Beaufort at $3000 to construct ferry dock and slip at Scriven's Ferry; 170 feet long; 50x60 feet at head; 14 feet above low water; supported on 74 piles. (Other details recently noted.)

Tex., Galveston — Pier, etc. — Galveston Wharf Co., J. J. Davis, general manager, states further relative and proposed improvements: Constructing on Pier 40 a reinforced concrete fireproof shed similar to shed constructed last year on Pier 39; also erecting new pier, No. 41, 400 feet wide by 120 feet long; this (41) an open pier; constructing number of reinforced-concrete walls in present sheds; also railroad tracks and shed for United Fruit Co. (Improvement bonds to amount of $350,000 recently noted.)

Tex., Fowlerton—Dam.—Fowler Bros. Land Co. will construct concrete dam on Frio River.

Va., Newport News—Harbor and Pier.—City voted bonds for $250,000 to purchase water-front property and build boat harbor and municipal pier. Address The Mayor. (Recently mentioned.)

Va., Norfolk.—Norfolk county will construct 300 wood bulkheads and place 18,000 cubic yards filling; Arthur C. Freeman, consulting engineer, Norfolk, receives bids until August 3. (See "Machinery Wanted.")

MISCELLANEOUS ENTERPRISES

Ala., Hartselle — Construction. — Norwood Construction Co., capital stock $10,000, incorporated; C. G. Kershaw, president; T. M. Porterfield, secretary-treasurer.

Fla., Apalachicola—Printing.—E. S. Sperry will erect brick building; reported to be equipped by Josiah Ferris as printing plant.

Ky., Beattyville—Contracting.—Beattyville Stone Co., capital stock $10,000, incorporated by W. F. Garrettson, E. H. Grieger and E. A. Polumbus.

Ky., Louisville—Dyeing and Finishing.—Ohio Falls Dyeing & Finishing Co. will build plant at 717-735 E. Madison St.; three stories; brick; cost $5000.

Md., Baltimore—Photo-Engraving.—Clarkson Photo-Engraving Co., capital stock $10,000, incorporated by Howard E. Miller (president International Syndicate, 213-215 Guilford Ave.), Charles F. Clarkson and Charles E. V. Myers.

Md., Baltimore — Ballograph.—Ballograph Company, capital stock $25,000, incorporated by James McAleer (of William F. Zeller & Co., 1119-1133 Denver St.), Thomas J. Sullivan and John J. Sullivan to reproduce baseball games by means of device containing baseball diamond in miniature.

Md., Baltimore — Contracting. — Core Contracting Co., capital stock $10,000, incorporated by William O. Sparklin, Anna Eva Price and John I. Rowe.

Md., Baltimore—Plumbing and Heating.—William A. Keen Plumbing & Heating Co. incorporated by William A. Keen (991 Frederick Ave. Ext.), Leonard F. Fowler and W. Hampton Linthicum.

Md., Baltimore—Electrical Appliances, etc. Wilson-Maltman Electric Co., capital stock $50,000, incorporated by William L. Wilson and J. Scott Maltman (both of Electric Installation Co., 411 N. Charles St.) and Ralph C. Sharretts, 506 Continental Bldg. Mr. Wilson is president; Mr. Sharretts, secretary-treasurer; Mr. Waltman, vice-president and manager.

Md., Baltimore — Ventilators. — Sanitary Ventilator Co., capital stock $25,000, incorporated by Francis S. Whitman (3100 Clifton Ave.), Louis M. Rawlings and Arthur Thompson.

Md., Baltimore—Linotype Composition.—Maryland Linotype Composition Co. incorporated by Robert A. Loving (2533 McCulloh St.), Henry C. Buchwald, George V. Knell and others.

Mo., Kansas City — Construction. — Spitcaufsky Construction Co., capital $2000, incorporated by Sol Goldansky, Charles Spitcaufsky and C. Hunt.

Mo., Springfield—Rock Crushing. — Benton Stone & Crusher Co., capital stock $10,000, incorporated by Sidney Beacon, George Schurer, James Boyd and John Brandon.

Mo., St. Louis—Electrical Construction Supplies, etc.—Cornwell Electric Co., capital stock $3000, incorporated by Benjamin S. Cornwell, William H. Chresinger and W. Viley.

Mo., St. Louis—Construction.—Bridgeton Construction Co., capital stock $5000, incorporated by J. Allen Ware of St. Louis, Charles E. Clark of Kansas City, Mo., and Charles Jackson of Carrollton, Mo.

Mo., St. Louis—Briquet Plants.—Malcolmson Briquet Engineering Co., capital stock $24,000, incorporated by David R. Francis, James E. Rutledge, Charles T. Malcolmson and others; will install coal briquetting plants equipped with machines manufactured by St. Louis Briquet Machinery Co.

N. C., Clarkton—Publishing.—Bladen Publishing Co., capital $25,000, incorporated by O. L. Clark, G. H. Currie and Jos. H. Little.

N. C., Raleigh—Abattoir, etc.—City will install abattoir, crematory and refrigerating plant. Address The Mayor.

S. C., Abbeville—Publishing.—Press and Banner Co., capital stock $10,000, incorporated; officers: W. W. Bradley, president; W. R. Bradley, vice-president; W. T. Walker, secretary-treasurer.

S. C., Greenville—Printing.—Advocate Publishing Co., S. A. Nettles, president, awarded contract to erect printing plant; 36x130 feet; two stories; ordinary construction; brick. (Recently noted.)

Tenn., Johnson City—Laundry.—Johnson City Steam Laundry increased capital stock from $3000 to $9000.

Tenn., Nashville—Taxicabs.—City Taxicab Co., capital stock $3500, incorporated by E. D. Dakin, T. O. Perkins, J. D. Andrews and others.

Tex., Dallas — Lithographing, etc. — Dorsey Company will erect two-story manufacturing plant of brick construction; bids received until August 8; plans at office of Brickey & Brickey, architects, 1313 Praetorian Bldg., Dallas.

Tex., Houston—Publishing.—W. H. Coyle & Co., capital stock $30,000, incorporated by R. M. Elgin, R. W. Elgin, J. K. Gillespie and others.

Va., Fisherville—Lime Grinding.—Fisherville Lime Grinding Co., capital stock $5000, organized; P. S. Boyd, president, Mooresville, N. C.; J. O. Mann, vice-president; W. R. Bailey, secretary, both of Fisherville.

Va., Petersburg—Dairy.—Petersburg Dairy Co., capital stock $20,000, incorporated; H. T. Young, president; G. B. Jones, secretary and treasurer.

Va., West Point—Steamship Line. — Virginia Steamship Co. incorporated with $25,000 capital stock to operate steamships between Aylett's and West Point; Walker D. Stuart, president, Richmond, Va.; Samuel H. Wilkinson, vice-president, Richmond; Robert C. Carden, treasurer-general manager, West Point.

MISCELLANEOUS FACTORIES

Ark., Hot Springs—Chemicals.—Hot Springs Chemical Co., capital stock $50,000, incorporated by F. P. Walker, G. P. Whittington and J. O. Rowles.

Ark., Stephens—Telephone Toll Register.—Northum Telephone Toll Register Co., capital stock $25,000, incorporated by H. H. Medlock, A. O. Green, Ralph Nixon and others.

Fla., Jacksonville—Cigars and Tobacco.—Dixie Cigar & Tobacco Co., capital stock $10,000, incorporated; Louis Zaborsky, president; D. C. Zaborsky, vice-president-general manager; Thomas W. Driggers, secretary-treasurer.

Fla., Largo—Fruit Juices and By-products. Pure Fruit Juices & By-Products Co., capital stock $100,000, incorporated to bottle juices of oranges, grapefruit, lemons, etc., and manufacture orange marmalade, guava paste, jelly, etc.; T. C. Hammond of Tampa, Fla., president; A. W. Giampietro, first vice-president and chief chemist; S. T. Johnson, second vice-president; W. M. Ulmer, third vice-president; John S. Taylor, treasurer; Dr. McMullen, secretary.

Fla., Miami—Shoes.—Nissen & Litts will establish shoe factory; remodel and equip building at 1010 Avenue D.

Ga., La Grange—Gas.—City votes in September on $215,000 bond issue for gas plant, etc. Address The Mayor. (See "Waterworks.")

Ga., Macon — Candies, Crackers, etc.—Yates-Coney Company, capital stock $1500, incorporated by C. J. Yates and O. J. Coney.

Ky., Corbin—Overalls.—Hubbard & Co., J. M. Hubbard, manager, have plans by S. S. Snyder, London, Ky., for 28x70-foot plant; ordinary construction; bids opened August 1; cost of machinery, $1500; daily capacity, 100 pairs overalls. (Recently noted.)

Ky., Fulton—Stirrups.—Fulton Stirrup Co. acquired Fulton Manufacturing Co. and will build stirrup factory to replace burned plant.

La., New Orleans — Molasses. — Dunbar Syrup & Molasses Co., capital stock $2,000,000, organized; will acquire malosses plant of Sunbar, Lopez & Dukate Co., increase capacity and operate; George H. Dunbar, president; E. Samuels, first vice-president; W. K. Dukate, second vice-president; S. Brown, secretary; G. W. Dunbar, treasurer.

Md., Baltimore—Brewery.—Gottlieb-Bauernschmidt-Strauss Brewing Co., Central Ave. and Fawn St., will build additional bottling-house and government cellar at plant on Hanover and Conway Sts.; contract awarded to Frederick Decker & Son, 1209 E. Biddle St., Baltimore.

Md., Baltimore—Sink Attachment. — Sink Overflow Co., 10 E. Lexington St., organized; Everett Moore, president; Charles T. Reifsnider, secretary; Rufus W. Applegarth, treasurer; will market portable sink overflow; parts will be manufactured and cast by contract and assembled at 707 E. Lombard St.; later contemplates erecting factory. (Recently reported incorporated with $20,000 capital stock.)

Md., Baltimore—Shirtwaists.—D. Levy & Sons Company, 107 Hanover St., will not lease warehouse at 409-413 E. Monument St. and equip for manufacturing shirtwaists. (Recently incorrectly reported.)

Md., Baltimore—Bakery.—City Baking Co., 500 Equitable Bldg., will build two concrete brick and stone smokestacks to building at 104 W. Barre St.; plans by John T. Gorsuch, 1314 N. Chester St.; contract awarded to O. J. Allenbaugh, 2216 Oliver St.

Md., Baltimore—Dresses.—Carmel & Greenebaum, 712 E. Baltimore St., leased fifth floor of 311-313 W. Baltimore St., measuring 75x175 feet.

Mo., Kansas City — Batteries. — Midland Battery Co., capital stock $25,000, incorporated by A. C. Owens, C. N. Bird and Samuel Silverman.

Mo., St. Louis—Gelatine.—Purity Gelatine Co. incorporated by J. R. Hanson, M. L. Hanson and O. K. Heinemann; capital stock, $2000.

Mo., St. Louis — Brooms. — Metal Case Broom Co. incorporated by L. M. Reed, Fred C. Bentench, B. Kenney, F. R. Lay and Edgar T. Belding; capital stock, $4000.

Mo., St. Louis—Disinfectants.—Sun Ray Spray & Disinfectant Co., 2334 Olive St., capital stock $3000, incorporated; M. Popper, president; A. Popper, secretary-treasurer.

Mo., St. Louis—Cloaks and Suits.—Sol. Landau Cloak & Suit Co., capital $10,000, incorporated by Sol. Landau, Birdie Landau and S. R. Evans.

Mo., St. Louis—Bakery. — Bowe Pie Co. will build bakery on site 158x130 feet; one story; granitoid floor; skylights; ovens of white enameled brick; corner of lot to be converted into roofed driveway, paved with vitrified brick; stable for 14 horses; cost $20,000; plans by William Wedemeyer of St. Louis.

Mo., St. Louis — Paper Stock. — General Paper Stock Co. will build $70,000 addition to converting plant; contract awarded.

Mo., Willow Spring — Creamery. — Green Hills Creamery Co., D. C. Preston, president (recently noted incorporated with $10,000 capital stock), has plans by T. S. Newsome, Ava, Mo., for creamery; 72x46 feet; two stories; ordinary construction; cost $3500; cost of machinery, $5000; main office, Seymour, Mo.; will open bids for machinery August 20; daily capacity, 5000 pounds of butter, besides ice cream, etc. (See "Machinery Wanted.")

N. C., High Point—Paper Boxes.—M. C. Price of Macon, Ga., will establish paper-box plant.

Okla., Ramona — Creamery. — Ramona Creamery Co., capital $2400, incorporated by T. W. Preston, Frank Harris, U. G. Bessot, H. C. Bingham and W. M. Price.

Okla., Muskogee—Fixtures.—Archie Wright awarded contract to remodel building to be occupied by Empire Fixture Works (recently noted incorporated with $20,000 capital stock); W. E. Davis, manager, Carthage, Mo.; ordinary construction; hand elevator; composition gravel roof; cost $10,000. (See "Machinery Wanted.")

Okla., Poteau—Gas.—Le Flore County Gas & Electric Co., capital stock $25,000, incorporated by Grey Moore, J. T. Little and T. B. Lunsford.

S. C., Chester—Creamery.—Arthur L. Gaston and J. Baxter Westbrook will build creamery; propose at first manufacturing butter and later ice cream.

S. C., Darlington—Gas.—Town Council granted franchise to Florence Gas Co. of Florence, S. C., to furnish gas.

Tenn., Greenevlle — Tobacco. — Pure Gold Tobacco Co., capital stock $300,000, is being organized by C. R. Daily, C. Austin and Roy Armitage.

Tenn., Nashville—Bottling.—Ala-Cola Co., capital $25,000, incorporated by Ira B. Clark, R. A. Henry, P. Russell, R. Taylor, J. A. Trimble and others.

Tex., Dallas—Plate Glass.—Federal Plate Glass Co. of Texas, capital stock $50,000, incorporated by Wesley Norris, L. A. Kippach, E. F. Achard, Rhodes S. Baker and Wendell Spence.

Tex., Houston—Gas Stove Tops.—Elmore-Blakely Manufacturing Co. organized by Mrs. E. E. Elmore to manufacture sanitary tops for gas stoves.

Tex., Marshall—Baskets.—Marshall Basket Co. will enlarge and improve plant; erect warehouse 100x60 feet, stock shed 30x156 feet, and addition to factory, 60x60 feet; cost $3000.

Va., Barton Heights, P. O. Richmond—Gas.—Henrico County Gas Co., William H. Campbell, local representative, contemplates furnishing town with gas; W. L. Ragland, Mayor.

MOTORS AND GARAGES

Fla., St. Augustine — Garage.—W. N. P. Darrow will build garage.

Fla., Tampa — Automobiles. — West Coast Auto Co., capital $25,000, incorporated; Victor A. James is president and general manager; Frank J. James is secretary and treasurer.

Ga., Lagrange—Garage.—J. G. Truitt will build garage; to be occupied by W. P. Burks of City Drug Co.

Ky., Newport—Automobiles.—Central Automobile Co., capital stock $15,000, incorporated by Walter P. Dickerson, Gus Koehler and Clyde Emrick.

Ky., Owensboro—Automobiles.—Ames Motor Car Co., F. A. Ames, president, will increase annual capacity to 2000 cars; erect additional buildings and install new equipment. (Recently reported incorporated with $100,000 capital stock.)

Md., Baltimore—Garage.—Mrs. I. Tagg has plans by Charles R. Burdette, 226 N. Fulton Ave., Baltimore, for garage at rear of 40-46 S. Catherine St.; one story; brick; 71x40 feet; fireproof.

Mo., Kansas City.—Hudson-Latham Motor Co., capital stock $10,000, incorporated by W. A. Latham, C. B. Boyd, William M. Boyd and B. Downing.

Mo., St. Louis—Showroom.—Samuel Brendon, president Western Automobile Co. (agent for Pierce-Arrow Motor Car Co. of Buffalo, N. Y.) purchased site 87x150 feet on which to erect building for showroom; white terra-cotta; white vitrified tile floor; cost $31,000; plans by Will Levy of St. Louis.

N. C., Charlotte—Garage. — McManaway's Garage, capital stock $20,000, incorporated by I. M. McManaway, C. R. McManaway and C. G. McManaway.

S. C., Columbia — Automobiles. — Consolidated Auto Co., capital stock $5000, incorporated; J. B. Roddey, president; John J. Cain, vice-president; J. P. Matthews, secretary-treasurer.

S. C., Spartanburg — Automobiles. — Little Automobile Supply Co. will install gasoline and compressed-air storage system and complete vulcanizing plant; will incorporate with $10,000; S. Craig Little is president.

Tenn., Knoxville — Garage. — Bell Estate awarded contract to Claiborne & Brooks to build garage to be occupied by City Garage & Transfer Co. (Recently mentioned.)

Tenn., Nashville—Automobiles. — Imperial Motor Car Co. increased capital stock from $8000 to $20,000.

Va., Richmond—Garage.—Ford Automobile Co. will build garage to cost $25,000; plans by A. F. Huntt of Richmond.

RAILWAY SHOPS, TERMINALS, ROUNDHOUSES, ETC.

Ga., Atlanta.—Atlanta, Birmingham & Atlantic Railroad, Alex. Bonnyman, general manager, Atlanta, Ga., will expend $821,340 for improvements to its property in Georgia and Alabama, including purchase of additional shop tools, $8000; interlocking plants near Bessemer, Ala., $26,000; additional depot facilities, $21,000; section-houses at Bushnell, Ga., and section foreman's house at Cordele, Ga., $5000, etc.; additional facilities to be provided at Brunswick, Ga., will cost about $380,000, and will include work which will create sufficient depth of water for use of Clyde Line ships. (Recently reported, under Brunswick, Ga., to expend $1,250,000 of issue of $5,000,000 in receivers' certificates for enlarging terminals, blasting roadbed, etc.)

Md., Hagerstown. — Western Maryland Railway, H. R. Pratt, chief engineer, Hillen Station, Baltimore, Md., has plans for roundhouse; reinforced concrete; concrete roof; 30 engine stalls; six 15-foot drop pits and twenty-four 3-foot inspection pits. (Previously mentioned.)

Tex., Brownwood.—Gulf, Colorado & Santa Fe Railway is planning investment of $500,000 to purchase land and build terminal facilities about 8 miles east of Brownwood; F. G. Pettibone, vice-president and general manager, wires Manufacturers Record that details are as yet indefinite.

ROAD AND STREET WORK

Ala., Decatur.—City will construct water-bound macadam driveway 16 feet wide and about one mile long; H. A. Skeggs, Mayor, and City Council receive bids until August 6. (See "Machinery Wanted.")

Ala., Jasper.—Walker county will grade and drain part of Jonesboro Rd., beginning at Frogagne Creek; expenditure $9000; W. S. Keller, State Highway Engineer, Montgomery, Ala. (See "Machinery Wanted.")

Ala., Talladega. — Talladega county will grade, drain and surface with gravel part of Talladega and Mardisville Rd.; expenditure $8000; W. S. Keller, State Highway Engineer, Montgomery, Ala. (See "Machinery Wanted.")

Ark., Little Rock.—Commissioners Street Improvement District No. 265 awarded contract to E. J. Wetterstrom of Little Rock to pave E. 3d St. with 3½-inch creosoted wood blocks; Ford & MacCrea, district engineers. (Call for bids lately noted.)

Ark., Paragould.—City will pave principal streets; cost $100,000. Address The Mayor.

Fla., Green Cove Springs.—Clay County Commissioners will open bids August 5 on stumping and grading road from Putnam county line to Duval county line; about 20 miles road to be constructed; also repairing of old roads; recently noted. (See "Machinery Wanted.")

Fla., Quincy.—Gadsden county will construct eight miles gravel roads; County Commissioners receive bids until August 6; D. K. Caldwell, County Engineer.

Fla., West Palm Beach.—Special Road and Bridge District No. 2, Palm Beach county, voted bond issue of $60,000 for road construction; C. H. Ruggles, County Engineer, West Palm Beach. (Previously noted.)

Fla., West Palm Beach.—Special Road and Bridge District No. 1 will expend about $85,000 on road construction; opens bids 12 noon September 3; has plans and specifications; C. H. Ruggles, County Engineer, West Palm Beach; Hutson B. Saunders, Jr., Clerk Circuit Court; previously noted. (See "Machinery Wanted.")

Ga., Valdosta.—City voted $25,000 bond issue for street paving; John T. Roberts, Mayor. (Recently mentioned.)

Ky., Lexington.—Clarence Le Bus, president Burley Tobacco Society, will construct several miles macadam roads, build stone fence and make other improvements to 300-acre tract.

Ky., Lexington.—City will pave Rose St., Mentelle Park, South Mill St., etc.; J. E. Cassidy, Mayor, receives bids until August 3. (See "Machinery Wanted.")

Ky., Pikeville.—City Engineers, Amick & Haynes, advise that bids will be received until 6 P. M. August 6 (postponed from July 25) for recently-noted (about) 15,000 square yards brick pavement on concrete base; also curb, gutter and drainage. (See "Machinery Wanted.")

La., New Iberia.—Iberia parish will vote on $180,000 bond issue for road construction; proposed to build 40 miles of road northward from New Iberia along Teche River. Address Iberia Parish Police Jury.

La., Plaquemine.—Iberville Parish Police Jury appropriated $45,000 to construct gravel roads.

Md., Baltimore.—State Roads Commission, 534 N. Howard St., will build 11 sections of State highway, aggregating 23.06 miles, in Dorchester, Kent, Prince George's, Queen Anne's and other counties; bids received until August 13; O. E. Weller, chairman of Commission. (See "Machinery Wanted.")

Md., Annapolis.—Anne Arundel county will construct section of State-aid highway on Pennington Ave. between Patapsco Ave. and Dry Branch; County Commissioners receive bids until August 6; S. O. Tilghman, Clerk. (See "Machinery Wanted.")

Md., Baltimore.—City will pave Exeter and Monument Sts., Contract No. 34, 13,700 square yards, granite block or Hassam granite block; Colvin, Buren, Truxton and Warden Sts., Contract No. 35, 4000 square yards, vitrified block; Board of Awards receives bids until August 7; R. Keith Compton, chairman Paving Commission; H. Kent McKay, chief engineer. (See "Machinery Wanted.")

Md., Belair. — Harford county will construct section of State-aid highway upon or along Wesley Chapel Rd. from Havre de Grace toward Wesley Chapel, 1.21 miles, and Belcamp Rd. from Belcamp Station to Castley Corner, 1.57 miles; County Commission-

ers receive bids until August 12; W. A. Wheeler, Clerk. (See "Machinery Wanted.")

Md., Upper Marlboro.—Prince George's county will improve one mile of Suitland Rd. in Spaldings District and erect five reinforced concrete culverts; Road Directors received bids until August 1; Louis L. Dent, road engineer.

Miss., Corinth.—Corinth, Shiloh & Savannah Turnpike Co. awarded contract to Newell Bros. Construction Co., Birmingham, Ala., to grade and gravel 11 miles of Corinth-Savannah turnpike from Shiloh Park to Mississippi line; road entirely within Tennessee, and will connect with road from Corinth to Tennessee line built by Alcorn county; Nashville Bridge Co. of Nashville, Tenn., has contract to build seven steel bridges; P. H. Kilpatrick, engineer, Corinth. (Call for bids lately noted.)

Miss., Raleigh.—Raleigh County Supervisors will issue $25,000 of bonds for road construction in District No. 3.

Mo., Fulton.—Fulton Special Road District, W. R. Heagler, chief engineer, awarded contract to Mulville Bros. of Alton, Ill., at $28,700, to grade about 28 miles of principal highways; will require removal of 125,000 cubic yards dirt; Mulvill Bros. will let subcontracts. (Call for bids lately noted.)

Mo., St. Joseph.—Buchanan county votes August 3 on $1,000,000 bond issue for road construction. Address County Commissioners.

Mo., Vandalia.—City will pave 10,000 square yards streets; bids received until August 6; J. O. Barrow, City Attorney. (See "Machinery Wanted.")

N. C., Greensboro.—City voted $130,000 bond issue, to be expended as follows: $75,000 for street improvements; $20,000 for water and sewer mains; $20,000 for city market and $15,000 for city hall improvements; total of $150,000 will be expended for street improvements; additional $75,000 to be paid by property owners. Address The Mayor. (Recently mentioned.)

N. C., Winston-Salem.—City voted $100,000 bond issue for street improvements, $50,000 for water-works extension, $85,000 for sewer construction, $15,000 for parks, $60,000 for schools and $90,000 for hospital; R. I. Dallon, Mayor. (Recently mentioned.)

Tenn., Gainesboro.—Jackson county will grade, ditch, drain and macadamize 30 miles roads; Good Roads Commissioners receive bids until August 8. (See "Machinery Wanted.")

Tenn., Memphis.—City will pave and curb East Barboro Al., 500 square yards concrete pavement and 250 linear feet steel-bound concrete curb; S. Center La., 380 square yards concrete pavement; Lane Ave., 1560 suare yards concrete pavement, and Maiden La., 360 square yards brick pavement and 360 square yards concrete foundation; Ennis M. Douglass, City Clerk, received bids until July 30; E. H. Crump, Mayor.

Tex., Bremond.—Precinct No. 5 of Robertson county voted $100,000 bond issue for road construction. Address County Commissioners.

Tex., Centerville.—Leon county will construct roads in Leona and Flynn Road District No. 5; $11,000 bond issue voted; W. D. Lacey, County Judge. (See "Machinery Wanted.")

Tex., Colorado.—Mitchell county defeated $20,000 bond issue for road construction in Loraine Precinct. Address County Commissioners. (Recently mentioned.)

Tex., Port Lavaca.—Calhoun county will construct shell road from Port O'Connor, Tex., to Victoria county line; County Commissioners receive bids until August 2; L. A. Gueringer, civil engineer, Victoria, Tex.; Willett Wilson, County Judge. (See "Machinery Wanted.")

Tex., Houston.—City will pave Houston, Dallas and Webster Aves. and German St. with vitrified brick; Dan C. Smith, Jr., City Secretary, City Hall, receives bids until August 12. (See "Machinery Wanted.")

Tex., Paris.—Board of Permanent Road Commission, W. F. Gill, secretary, awarded contract to O'Neil Engineering Co., Paris, to construct 42 to 48 miles rock highway; amount available, $300,000; M. Hannah, engineer in charge. (Lamar county recently noted to vote August 17 on $100,000 bond issue for road construction.)

Tex., Sherman.—City voted $100,000 bond issue to pave streets. Address The Mayor. (Recently mentioned.)

Tex., Terrell.—City will construct 3300 linear feet cement sidewalks on South Rockwall Ave., and about 20,000 square yards pavement and 5000 linear feet cement curb and gutter on Moore Ave.; E. R. Miller, City Secretary, receives bids until August 6 for latter; bids for former opened July 30. (See "Machinery Wanted.")

Tex., Waco.—City will pave about 53,229 square yards of pavement in residence and business section; amount available, $65,000; bids opened August 6; G. E. Byars, City Engineer; P. A. Gorman, Commissioner of Streets, etc.; recently noted as passing ordinance to pave streets at cost of $125,000. (See "Machinery Wanted.")

Va., Bowling Green.—Caroline county defeated $125,000 bond issue for road construction. Address County Commissioners. (Recently mentioned.)

Va., Culpeper.—City and Culpeper county awarded contract to Culpeper Construction Co. of Culpeper at $25,949.34 to macadamize 4 3-10 miles of streets in Culpeper. This is first section of work to macadamize streets and roads in Culpeper magisterial district, for which $120,000 bond issue was previously voted.

Va., Lunenburg.—Brown's Store District will construct 37 miles of roads; date for opening bids not set. (Bond issue of $40,000 recently noted voted.)

Va., Portsmouth.—City awarded contract to A. H. Flynn to pave granolithic sidewalks and driveways on Race Ave., 3d, North and Ann Sts.; L. P. Slater, City Clerk. (Call for bids lately noted.)

Va., Richmond.—Henrico county will construct one mile macadam road on Patterson Ave. from city limits to Woodlawn Ave. in county; County Clerk receives bids until August 6; P. St. J. Wilson, State Highway Commissioner, Richmond, Va. (See "Machinery Wanted.")

Va., Spotsylvania.—Spotsylvania county will construct 4½ miles gravel road on Catharpin Rd. in Chancellor district; Board of Public Roads, care M. B. Rowe, Fredericksburg, Va., received bids until August 1; P. St. J. Wilson, State Highway Commissioner, Richmond, Va.

Va., Stafford.—Stafford County Commissioners awarded contract to Emporia Construction Co. of Emporia, Va., at $2294.97 per mile to construct seven miles on Warrenton Rd., with privilege of extending distance to 10 miles; also at $2764 per mile to construct 16 miles on Falmouth to Farrisonville Rd., with option of extending same to Potomac Run. (Call for bids lately noted.)

W. Va., Bluefield.—Board of Public Affairs adopted ordinance for paving with bituminous macadam Adams St. from intersection with East River Ave. 1000 feet westward and entire length of Jefferson St.; width 28 feet; will also pave Ramsey St. from Bland to Tazewell St.; width 18 feet.

W. Va., Kingwood.—Preston county will vote on $200,000 bond issue for road construction. Address County Commissioners.

SEWER CONSTRUCTION

Ala., Mobile.—City votes September 2 on $100,000 bond issue, of which $23,000 will be for additional sanitary sewer construction and $2000 for purchase of rights of way and contingent expenses. Wright Smith, City Engineer.

Ark., Pine Bluff.—City will construct storm sewers from 16th to Harding Ave., and storm sewers 3½ blocks long from 13th Ave. to lake bed; estimated cost, $3000. Address The Mayor.

Fla., Fort Lauderdale.—City votes August 6 on $40,000 bond issue to construct sewer system and water-works. Address The Mayor.

Ga., Douglas.—City will extend sewer system and water-works; Arthur Pew of Atlanta, Ga., will prepare plans; $25,000 bond issue voted. (Previously mentioned.)

Ga., Oakhurst.—City votes August 24 on $7000 bond issue to improve sewer system; J. B. McCrary Company, Third National Bank Bldg., Atlanta, Ga., will prepare plans. (Recently mentioned.)

Ga., Valdosta.—City voted $15,000 bond issue to extend sewer system; John A. Roberts, Mayor. (Recently mentioned.)

Ky., Danville.—City awarded contract to T. F. Clark at about $5000 to construct sewers.

Ky., Glasgow.—South Glasgow Sewerage Co. organized; L. W. Gee, W. H. Honeycutt and P. W. Holman are interested.

Ky., Lexington.—City will construct sanitary sewers on E. High and Merino Sts. and Rand and Kentucky Aves.; eight-inch pipe with house connections of five-inch pipe to curb line; J. E. Cassidy, Mayor, receives bids until August 3. (See "Machinery Wanted.")

Md., Baltimore.—City will construct miscellaneous sanitary lateral sewers; 11,000 linear feet vitrified pipe sewer and 6500 linear feet house connections; Board of Awards receives bids until August 7; Calvin W. Hendrick, chief engineer Sewerage Commission, 904 American Bldg. (See "Machinery Wanted.")

Md., Ridgely.—Town will issue $20,000 sewer bonds; Frank M. Long, Town Secretary.

Mo., St. Louis.—City will construct second section North Harlem joint sewer; receives bids until August 9. Address Board of Public Improvements. (See "Machinery Wanted.")

Mo., Webb City.—City votes about August 26 on $17,000 bond issue to construct storm sewers. Address The Mayor.

N. C., Greensboro.—City voted $20,000 bond issue for sewer and water mains; recently mentioned. (See "Road and Street Work.")

N. C., Winston-Salem.—City voted $85,000 bond issue for sewer construction; recently mentioned: R. I. Dallon, Mayor. (See "Road and Street Work.")

Okla., Eufaula.—City votes on $75,000 bond issue to extend sewer system and water-works. Address The Mayor.

S. C., Blackville.—City voted $28,000 bond issue to construct sewer system and water-works; expend $12,000 on sewer system; 10,000 linear feet 8-inch, 2000 feet 10-inch and 2000 feet 12-inch terra-cotta pipe; disposal plant 80x12x7 feet; open bids September 17; J. Newton Johnston, engineer, Florence, S. C.; recently noted. (See "Machinery Wanted.")

S. C., Columbia.—City receives bids until 10 A. M. August 8 for construction of concrete storm-water drain on Elmwood Ave. and on Winyah St.; about 2050 linear feet 42-inch, 48-inch and 60-inch inside diameter; John McNeal, City Engineer. (See "Machinery Wanted.")

Tenn., Chattanooga.—City will construct brick and pipe sewers on Highland Park Ave. from Henderson to Union Ave.; A. N. Sloan, Commissioner Department Streets and Sewers, receives bids until August 6. (See "Machinery Wanted.")

Tex., Clarksville.—City engaged Nagle & Peterson, civil engineers of Muskogee, Okla., to supervise construction of sewer system, 8 miles; estimated cost $25,000; John R. Webb, City Clerk. (Recently mentioned.)

Tex., El Paso.—C. E. Kelly, Mayor, recommends bond issue for sewer extension.

Tex., San Benito.—City will construct sanitary sewer system; Brice Frazier, City Secretary, receives bids until August 30. (See "Machinery Wanted.")

Va., Petersburg.—Central State Hospital, William F. Drewry, superintendent, will construct one mile sewer pipe line from hospital to Appomattox River; will consist in part of cast-iron pipe supported by steel viaduct and in part of terra-cotta pipe; bids received until August 5. (See "Machinery Wanted.")

Va., Pulaski.—City will vote on $50,000 bond issue to construct sewer system. Address The Mayor. J. L. Ludlow, engineer, Winston-Salem, N. C., recently reported to have submitted report estimating cost of 13-mile system at $51,065.)

W. Va., Rowlesburg.—City voted $2000 sewer bond issue. Address The Mayor.

TELEPHONE SYSTEMS

Fla., Enterprise.—Enterprise Telephone Co. incorporated; president, Fred A. Gordon, vice-president, John B. Tuttle; secretary, William H. Adams; treasurer, William S. Thayer.

Ga., Macon.—Southern Bell Telephone & Telegraph Co. (main office, Atlanta, Ga.) will extend telephone system; construct new lines in residence districts, repair underground cables, etc.; estimated cost, $50,000. (Previously mentioned.)

Ky., Salyersville.—Burning Fork Telephone Co. incorporated by Louis Marshall, James H. Arnett, Butler Kelly, Oliver Patrick and others.

N. C., Cornwall, R. F. D. from Virgilina, Va.—Granville Telephone Co., capital stock $10,000, incorporated by J. S. Watkins, J. M. Bennett and others.

S. C., Lynchburg.—Lynchburg Telephone Co. incorporated by S. W. Frierson, T. N. Griffin and C. E. Timmons.

S. C., Pinewood.—Pinewood Telephone Exchange incorporated; J. W. Weeks, president; D. R. Lide, vice-president; Walter D. Epperson, secretary-treasurer-general manager.

Tex., Corpus Christi.—Corpus-Laureles Telephone Co., capital stock $1500, incorporated by J. A. Hill, P. E. Morgan and H. M. Stockton.

W. Va., Parsons.—Duncan Telephone Co., capital $3000, incorporated by J. W. Duncan, J. W. Arnold and H. R. Duncan of Thomas, W. Va.; N. B. Miller and Mandie Pennington of Parsons.

TEXTILE MILLS

Ga., Albany—Cotton Products.—Albany Cotton Manufacturing Co., capital stock $110,000, incorporated by W. W. Pace and others.

Md., Boonsboro—Hosiery.—Blue Ridge Knitting Co., Hagerstown, Md., contemplates erecting branch mill.

N. C., Concord—Damask, etc.—Young-Hartsell Mills Co. will erect 40x32-foot addition; brick construction; awarded contract to R. A. Brown Construction Co., Concord.

N. C., Roanoke Rapids—Damask, etc.—Rosemary Manufacturing Co. will build 60-foot extension to weave shed and install additional looms, No. 1 mill; is adding cards and spindles in No. 2 mill; will build 100x100-foot structure for additional facilities for shops and supply-rooms; is considering erection of another mill. (Previously mentioned.)

N. C., Salisbury—Damask.—Princeton Cotton Mill awarded contract at $6000 to D. K. Cecil of Lexington, N. C., for erection of one-story 54x224-foot brick building; will install 3000 spindles, 36 looms, etc., driven by electric power. (Organization, etc., recently reported.)

S. C., Greenwood—Print Cloth.—Greenwood Cotton Mills increased capital stock from $500,000 to $900,000 as previously noted proposed; plans to build 20,000-spindle and 500-loom addition.

S. C., Lancaster—Sheeting, etc.—Lancaster Cotton Mills will open bids August 13 for construction of additional building; standard mill construction; will add 50,000 spindles and about 1500 looms; engineer-architect in charge, J. E. Sirrine of Greenville, S. C. (Lately mentioned.)

S. C., Pickens—Sheeting.—Pickens Cotton Mills will build 105x86-foot brick addition costing $20,000, and has awarded contract; will install 6000 spindles and 160 looms costing $70,000, and has purchased this machinery. (Lately mentioned.)

Tenn., Prendergast—Cotton Yarns.—Prendergast Cotton Mills will erect 200x166-foot building, costing $20,000, and installing 10,000 spindles driven by electric power; machinery cost, $80,000; W. J. McLenden, president, is architect-engineer in charge; W. S. Probst, vice-president; Dr. W. R. Fronebarger, secretary-treasurer. (Recently noted incorporated, etc.)

Tex., Cuero—Cotton Cloth.—Guadalupe Valley Cotton Mills will add 50x60-foot wing to main building for clothroom; also build one-story 100x100-foot warehouse; both to cost $10,000.

WATER-POWER DEVELOPMENTS

W. Va., Kingwood.—West Penn Traction & Water-Power Co., Pittsburgh, Pa., wires Manufacturers Record relative to contract mentioned July 24, as follows: "Contract given to T. A. Gillespie Company, Pittsburgh, for construction of State line dam on Cheat River, in West Virginia; cost approximately $1,000,000; dam of solid concrete, 1000 feet long, gives 85-foot head and averages 100 feet above bed rock; powerhouse to contain four vertical turbine generator sets, 12,000 horse-power each; contracts closed and supplies all purchased." Company also advises it is now making surveys for constructing high-tension transmission line connecting with Washington, Pa.; that dam contract does not include machinery and equipment, and that it is expected over 100,000-horse-power will be available when up-river developments are completed. (Plan for this development previously detailed.)

W. Va., Martinsburg.—Martinsburg Power Co. contemplates installation of additional 750-kilowatt generator at Dam No. 4 on Potomac River and rebuilding and enlarging power plant at Dam No. 5.

WATER-WORKS

Ala., Anniston.—J. E. Henry will, it is reported, construct private water-works; build-

ing reservoir on hill about quarter mile from residence.

Ala., Flat Rock, P. O. Fabius.—Flat Rock High School will install water-works and electric-light plant; power from Flat Rock Creek. (See "Schools.")

Ark., Brinkley.—Brinkley Water & Light Co., capital stock $50,000, incorporated by J. E. Thompson, W. W. Sharp, Elmo Chaney and others; previously noted as to improve plant.

Ark., Mansfield.—City is having surveys made preparatory to installing water-works; construct standpipe and pipe lines; water will be piped from mountain, 4½ miles distant; W. R. Alexander, Mayor. (Recently noted.)

Fla., Fort Lauderdale.—City votes August 6 on $40,000 bond issue to construct water-works and sewer system. Address The Mayor.

Ga., Buford.—City awarded contract to B. F. Roberts, 152 Hines Ter., Macon, Ga., for construction of about two miles six-inch and eight-inch water pipe. (Previously noted.)

Ga., Douglas.—City will extend water-works and sewer system; Arthur Pew of Atlanta, Ga., will prepare plans; $25,000 bond issue voted. (Previously mentioned.)

Ga., Lagrange.—City votes in September on $215,000 bond issue for water-works, gas plant and schools. Address The Mayor.

Ga., Oakhurst.—City votes August 24 on $11,000 bond issue for water-works improvements; J. B. McCrary Company, Third National Bank Bldg., Atlanta, Ga., will prepare plans. (Recently mentioned.)

Ga., Pavo.—Water-works contract, recently noted awarded to J. L. Thrash of Baughn & Thrash, Tifton, Ga., includes following: Compound duplex steam pump, 500,000 gallons capacity; air compressor with capacity of 250 cubic feet free air per minute against 100 pounds working pressure; feed-water heater, 100 horse-power; 100 horse-power boiler; reservoir, 68,000 gallons capacity; 32x41-foot station building.

Ga., Valdosta.—City voted $55,000 bond issue to enlarge water plant; John T. Roberts, Mayor. (Recently mentioned.)

Ky., Mount Sterling.—Mt. Sterling Water, Light & Ice Co. awarded contract for filter plant. (Recently reported to have secured 20-year franchise for water and lighting systems and contemplating improvements.)

La., Shreveport.—City Council authorized expenditure of $8000 to construct water system at State Fair grounds; C. G. Rives, Acting Mayor.

La., Shreveport.—City will construct 100,000-gallon steel water tank and 4500 linear feet six-inch cast-iron water pipe, etc.; L. H. Baker, secretary-treasurer, receives bids until August 5. (See "Machinery Wanted.")

Mo., Villa Heights, P. O. at Joplin.—City votes August 13 on $20,000 water-works bond issue. Address The Mayor.

N. C., Elkin.—Town contemplates constructing water-works. Address The Mayor.

N. C., Greensboro.—City voted $20,000 bond issue for water and sewer mains; recently mentioned. Address The Mayor. (See "Road and Street Work.")

N. C., Winston-Salem.—City voted $50,000 bond issue for water-works extension; R. I. Dalton, Mayor. (Recently mentioned.)

Okla., Calvin.—City voted on $17,500 water-works bond issue. Address The Mayor.

Okla., Eufaula.—City votes on $75,000 bond issue to extend water-works and sewer system. Address The Mayor.

Okla., McCurtain.—City will install water-works in fall or winter; address C. X. Edwards, chairman of City Council. (See "Machinery Wanted.")

S. C., Blackville.—City voted $28,000 bond issue for water-works and sewer system; expend $22,000 on water-works construction; capacity 720,000 gallons daily; 50,000-gallon reservoir; open bids about September 17 on construction, including 34x46½-foot brick pumping station; 100-horse-power boiler; service pump; air compressor; steel tank and 100-foot tower; engineer, J. Newton Johnston, Florence, S. C.; recently noted. (See "Machinery Wanted.")

S. C., Branchville.—City engaged J. Newton Johnston, Florence, S. C., to make surveys, plans and estimates for water-works; W. A. Dukes, Mayor.

S. C., Rock Hill.—City voted $50,000 bond issue to construct pipe line to secure additional water supply from Catawba River; about $25,000 available; total estimated cost, $70,000. Address The Mayor. (Recently mentioned.)

Tex., Dallas.—City rejected bids for construction of filtration plant; J. B. Winslett, City Secretary, invites new bids; James H. Fuertes, 140 Nassau St., New York, is consulting engineer. (Call for bids lately noted.)

Tex., El Paso.—C. E. Kelly, Mayor, recommends $150,000 bond issue to extend water-works.

Tex., Madisonville.—City voted $16,000 bond issue to construct water-works. Address The Mayor. (Recently mentioned.)

Tex., Sherman.—City voted $10,000 bond issue to extend water-works, etc. Address The Mayor.

W. Va., Rowlesburg.—City voted $11,000 bond issue for water-works. George Hayes, City Recorder.

W. Va., Parkersburg.—City will construct 6,000,000-gallon reinforced concrete circular reservoir on Boreman Hill; City Council receives bids until August 8; Frank Good, City Clerk; L. E. Chapin, engineer, 1017 Frick Bldg., Pittsburg, Pa. (See "Machinery Wanted.")

W. Va., Wayne.—Wayne Light, Heat & Water Co. incorporated by B. J. Prichard and others. (See "Electric Plants.")

WOODWORKING PLANTS

Ark., Pine Bluff—Staves.—Vauled-Brewster Stave Co. organized by Sam Vauled and Arthur Brewster; purchased $10,000 worth of timber and will build mill.

Ky., Burnside—Pencils.—F. & O. Cedar Co. will build pencil factory.

Ky., Louisville—Furniture.—H. C. Clark Manufacturing Co. incorporated by Joseph Lehmann, Peter Lehmann and H. C. Clark.

Miss., Columbus—Box Shook.—A. G. Maxwell and R. L. Farley (managers of Cookeville Veneer Factory), Cookeville, Tenn., will establish plant to manufacture box shook used for making strawberry and egg crates, etc.; erect five buildings; cost $40,000.

Okla., Fort Towson—Boxes.—Ozark Box Co. will erect 90x140-foot building; ordinary construction; cost $6000. Recently noted incorporated with $10,000 capital stock by J. H. Coffman and others.)

Tenn., De Rossett.—Southern Lumber & Manufacturing Co., Nashville, Tenn., will erect stave mill; daily capacity, 10,000 staves. (See "Lumber Manufacturing Plants" and "Machinery Wanted.")

Tenn., Nashville—Furniture.—Talbot Furniture Co., capital stock $35,000, incorporated by V. B. Talbot, W. E. Talbot, T. M. Campbell and others.

Tenn., Nashville—Spokes.—Bilbrey-Welch Spoke Co., capital stock $50,000, incorporated by J. C. Bilbrey, probably of Nashville, and Mr. Welch of Welch Stave & Heading Co., Monterey, Tenn.; acquired Carthage Hickory Spoke Works; will build plant at Nashville.

BURNED

Ala., Albertville.—John T. Wellburn's steam laundry.

Ala., Cullman.—Fuller Bros.' store; loss about $20,000.

Ala., Huntsville.—G. D. White's cotton gin, seedhouse and sawmill near Madison Cross-roads; loss $5000.

Ark., Clarendon.—Jefferies & Sons' warehouse and other buildings were not burned as recently reported.

Fla., Mayo.—W. E. Mayo's ice and electric-light plants; loss $10,000.

Ga., Blakely.—R. L. Howell's residence on Cuthbert St.

Ga., Macon.—Kinnett Bros.' ice-cream plant at 5th and Cherry Sts.; loss $6000, of which $2500 was on building.

Ga., Sandersville.—Marvin Gross' residence.

Ky., Glasgow.—Lewis Planing Mills; loss $15,000.

Ky., Mayfield.—Gardner & Walker's tobacco warehouses and other buildings; loss $100,000.

La., New Orleans.—Fischer Lumber Co.'s plant at Fischer's Landing on Mississippi River.

Miss., Vicksburg.—J. J. Lum's residence damaged.

Mo., St. Louis.—F. W. Goeke Dried Feed Co.'s plant; loss $75,000.

N. C., Troy.—Guilford Manufacturing Co.'s lumber plant; loss $25,000 to $50,000.

Okla., Alva.—A. Linton's residence.

S. C., Anderson.—Blue Ridge Railway's trestle across Twenty-Six Mile Creek; estimated loss, $50,000; J. R. Anderson, superintendent.

S. C., Conway.—Trexler Lumber Co.'s sawmill; estimated loss $60,000.

S. C., Westville.—Jake Crow's sawmill.

Tex., Beeville.—Beeville Hotel, owned by A. W. and S. L. Gurley; loss $8000.

Tex., Gainesville.—Mrs. Ab. Burch's residence; loss $10,000.

Tex., Mason.—Holden & Bickenbach's drug store; loss $3000.

Tex., Mount Pleasant.—Mount Pleasant Canning Co.'s plant; loss $3000.

Tex., San Marcos.—Home Farm Gin Co.'s plant; loss $6000.

Va., Petersburg.—Cockade City Mills; loss $20,000.

Va., Lambert's Point.—Thomas H. Hanor's tobacco plant; loss on building about $10,000; loss on machinery, $17,500.

Va., Petersburg.—Virginia Consolidated Milling Co.'s flour and meal mill; building owned by Virginia Railway & Power Co.

W. Va., Huntington.—Sliger Bros.' planing mill; loss $30,000.

W. Va., Nollville (not a postoffice).—Apple barrel factory owned by Thomas Wolford of Jones Spring, W. Va.

DAMAGED BY STORM

Md., Oakland.—Naylor Building at Liberty and Wilson Sts.; H. Weber & Sons Company's floral establishment, loss $5000.

BUILDING NEWS

BUILDINGS PROPOSED

APARTMENT-HOUSES

Fla., Lakeland.—H. D. Bassett will erect store and apartment-house. (See "Stores.")

Mo., Kansas City.—Claud Parlitt will erect store and apartment building. (See "Stores.")

Mo., St. Louis.—Trustees of Shaw estate will erect apartment-house at DeTonty and Lawrence Sts.; cost $20,000.

Mo., St. Louis.—Parkmur Apartment Co. has plans by E. A. Klusmeyer, St. Louis, for apartment-house at 3927 W. Pine Blvd.; six suites of four and five rooms; porches; tile bathrooms; hardwood finishings.

Mo., St. Louis.—Hackmann Real Estate Co. will erect tenement-houses at 1453-55 Clara St. and 1371-73 Shawmut St.; cost $4000 and $5300, respectively; two stories each.

Mo., St. Louis.—Fred Behrung will erect two-story tenement-house at 1423 De Soto St.; cost $3500.

Mo., St. Louis.—Trade Realty & Building Co. will erect three-story tenement-house at 5951-53 Washington St.; cost $25,000.

Mo., St. Louis.—William Duerbeck will erect three two-story tenement-houses at 4748-58 Tennessee St.; cost $15,000.

Mo., St. Louis.—Clem B. Fisten will erect apartment-house on Jefferson Ave.; four and five rooms; cost $6000.

Mo., St. Louis.—Norman B. Howard, Balson Bldg., Delmar and Hamilton Ave., will expend $15,000 to erect tenement-house at 5925 Washington Ave.; 51x54 feet; ordinary construction; steam heat; electric lighting; composition roof; plans and construction by owner. (Recently noted.)

Mo., St. Louis.—A. G. Bolgard will erect two-story tenement-house at 4937 Odell St.; cost $5000.

Mo., St. Louis.—M. T. Hoffman will erect three apartment-houses at 5315-5323 Berlin Ave.; cost $37,500.

Mo., St. Louis.—William Ulrich will erect two-story tenement-house at 2302-2302a Louisiana St.; cost $4000.

Mo., St. Louis.—Charles C. Stewart will erect two-story tenement-house at 4158-60 Labadie St.; cost $6300.

Mo., St. Louis.—Thomas F. Knittel will erect two-story tenement-house at 4741 Alaska St.; cost $4000.

Mo., St. Louis.—John Micholson will erect two-story tenement-house at 6025-25a Kingsbury St.; cost $5000.

Mo., St. Louis.—C. & E. Teurne will erect two-story tenement-house at 3826 De Tonty St.; cost $5000.

Mo., St. Louis.—F. Louis Nottebrok will erect single flat on Natural Bridge Ave.

Mo., St. Louis.—Charles F. Kemper will erect brick apartment-houss on Nebraska Ave.

Tenn., Chattanooga.—J. H. Wardlaw and associates will erect building with two upper floors; probably for apartments. (See "Stores.")

Tex., Houston.—Murray B. Jones has plans by Mauran, Russell & Crowell, St. Louis, Mo., for apartment-house at Dallas Ave. and Fannin St.; 100x100 feet; brick and concrete; electric lights; steam heat; elevator service; three stories; front trimmed with brass and stucco; cost $50,000. (Previously noted.)

Va., Richmond.—St. Andrews Association will erect two-story brick tenement-house on Taylor St.; cost $22,500.

Va., Richmond.—City Investing Corporation, E. B. Thomason, president, Mutual Bldg., will expend $300,000 to erect apartment-house; 12 stories; fireproof construction; low-pressure (direct radiation) steam heat; electric lighting; electric elevator; tile roof; plans by Alfred C. Bossom, 366 Fifth Ave., New York; architect may be addressed. (Green & Redd recently noted as having plans prepared by Mr. Bossom for apartment-house.)

Va., Richmond.—Mary W. Hamilton will erect two-story frame tenement-house at 1423-1425 Perry St.; cost $3500.

Va., Suffolk.—S. Isabel Rison will erect store and apartment building. (See "Stores.")

ASSOCIATION AND FRATERNAL

Ala., Athens.—Independent Order of Odd Fellows will erect lodge; two stories.

Ala., Mobile.—Directors of Odd Fellows' Building Association will receive bids addressed to Albert D. Bloch, president, until August 25, to remodel Temperance Hall; certified check for 2 per cent. amount of bid, payable to Mr. Bloch; plans and specifications at office of McCreary & Slater, architects, 29 Bank of Mobile Bldg.

Fla., Miami.—Miami Lodge No. 948, Benevolent Protective Order of Elks, will erect lodge building at 12th St. and Avenue A; 50x140 feet; two stories; reinforced concrete; fireproof. (Previously noted.)

Ga., Atlanta.—Young Men's Christian Association has plans for proposed branch building for colored people.

Ky., Uniontown.—Knights of Columbus are having plans prepared by D. E. Caulton, Morganfield, Ky., for lodge building; two stories; brick; lower floor for store.

Md., Frederick.—Baltimore & Ohio Railroad, F. L. Steuart, chief engineer, Baltimore and Charles Sts., Baltimore, Md., will, it is reported, expend $15,000 for improvements to Young Men's Christian Association building.

Mo., Kansas City.—Westport Masonic Building Co. will erect store and hall at 3845-47 Broadway; concrete; cost $35,000.

Mo., Neosho.—Neosho Lodge No. 247, Ancient Free and Accepted Masons, J. B. Lochr, D. F. Stout and others, committee, will receive bids until August 9, addressed to Charles E. Prettyman, to erect new building and remodel present structure; certified check for $100; plans and specifications at office of Spring City Hotel.

Mo., St. Louis.—Loyal Order of Moose, Holland Bldg., plans to erect clubhouse and auditorium; cost $100,000.

N. C., Asheville.—Asheville Aerie, Fraternal Order of Eagles, will erect lodge building; cost $25,000.

Okla., Tulsa.—Aurora Lodge No. 36, Independent Order of Odd Fellows, will erect lodge building; three or four stories.

Tenn., Fountain City.—Bright Hope Lodge, Ancient Free and Accepted Masons, has plans by Baumann Bros., Knoxville, Tenn., for lodge building; two stories; brick.

Tex., Houston.—Peden Iron & Steel Co. will increase office facilities. (See "Warehouses.")

Tex., San Antonio.—Peden Iron & Steel Co. will increase office facilities. (See "Warehouses," Texas, Houston.)

Va., Richmond.—Junior Order United American Mechanics will erect lodge building on Louisiana St.; three stories; is having plans prepared by H. C. Linthicum, Richmond.

BANK AND OFFICE

Ala., Bay Minette.—W. D. Stapleton will erect office building on Courthouse Square.

D. C., Washington.—American Security &

Trust Co., 15th St. and Pennsylvania Ave. N. W., will expend $3000 for improvements to office building at 312 13th St. N. W.

Fla., Miami.—Board of Trade has plans by Mr. Mundy for building; two stories; reinforced concrete; lower floor for mercantile purposes; cost $6000. (Recently noted.)

Ga., Atlanta.—C. W. McClure will probably erect office building at 15 Houston St.

Ky., Hopkinsville.—W. R. Gatlin, Hopkinsville, is preparing plans for four-story office building; cost $50,000; Odie Davis of Cooper & Davis, Hopkinsville, will supervise construction.

La., New Orleans.—Receivers of State National Bank will expend $6300 for improvements to bank building.

Miss., Booneville.—Bank of Booneville will enlarge bank building by erecting additions on east and west sides.

Okla., Chickasha.—J. D. Sugg, San Angelo, Tex., Ben F. Johnson, representative, Chickasha, will erect bank and office building, 100x100 feet, and theater in rear, 50x100 feet; bank with floor space of 35x100 feet; main entrance, 15 feet wide, leading to two elevators; 100 or more offices; steel and reinforced concrete; cream enameled terra-cotta up to first story; remainder of exterior purple tapestry brick; cream enameled terra-cotta trimmings; fireproof.

S. C., Greenville.—W. T. Henderson and associates have plans for office, store and theater building. (See "Theaters.")

Tex., Houston.—Mason Building Co. will open bids about August 20 to erect office and store building; 10 stories and basement; fireproof construction; install three elevators; cost $300,000; plans by Mauran, Russell & Crowell, Houston, and St. Louis, Mo., who may be addressed. (Recently noted.)

Tex., Victoria.—J. J. Welder will receive bids until August 13 to erect five-story office building; will receive bids as whole or separate bids for plumbing, wiring and heating; plans and specifications at office of C. H. Page & Bro., architects, Houston and Austin, Tex. (Previously mentioned.)

W. Va., Grafton.—Henry Wehn will, it is reported, erect brick store and office building on Main St.

CHURCHES

Ala., Eufaula.—First Methodist Episcopal Church will erect edifice. Address The Pastor, First Methodist Episcopal Church.

Ark., Batesville. — Methodist Episcopal Church will open bids in about six weeks to erect proposed edifice; steam heat; slate roof; plans by John Gaisford, Memphis, Tennessee.

Fla., Lakeland. — Methodist Church will erect edifice; Rev. W. H. Steinmeyer and Rev. Isaac C. Jenkins are interested.

La., New Orleans.—Parish of St. Francis of Assisi, Rev. C. F. Brockmeier, pastor, will erect edifice at State and Constance Sts.

La., New Orleans.—Christ Church will expend $3161 to repair edifice at 1632 6th St. Address The Pastor, Christ Church.

Md., Lonaconing. — Baptist congregation, Rev. J. P. Filson, pastor, will erect edifice.

Miss., Gulfport. — Methodist Episcopal Church South will open bids August 10 to erect edifice; 70x140 feet; ordinary construction; hot-air heat; tin roof; cost $25,000; plans by William Drago, 512 Audubon Bldg., New Orleans, La. (Previously noted.)

Tex., Fowlerton.—Christian Church, Rev. P. W. Barnes, pastor, will erect edifice; cost $3000.

Tex., Fowlerton. — Methodist Episcopal Church will erect 38x48-foot edifice. Address Rev. E. Booth, pastor, Methodist Episcopal Church, Dilley, Tex.

Tex., Galveston. — West End Methodist Church, Rev. W. M. Sherrill, pastor, will erect edifice.

Tenn., Memphis.—Calvary Baptist Church has plans by John Gaisford, Memphis, for edifice at Lamar Ave. and Euclid St.; red brick and white stone; cost $14,000.

Tex., Bishop. — Methodist congregation plans to erect edifice. Address The Pastor, Methodist Church.

Tex., Houston.—Baptist Church, Rev. C. A. Earl, pastor, will erect edifice; cost $10,000; will erect Sunday-school building first and main auditorium later.

Va., Alexandria. — Second Presbyterian Church will erect Sunday-school building at Prince and St. Asaph Sts., to cost $10,000; will remodel church proper and enlarge auditorium. Address The Pastor, Second Presbyterian Church.

Va., Salem.—Methodist Episcopal Church will expend $8000 to erect Sunday-school addition; 60x62 feet; ordinary construction; hot-air heat; electric lighting; slate roof; plans by G. R. Ragan, Salem. (Architect recently noted to receive bids until July 27.)

CITY AND COUNTY

Ala., Grove Hill—Jail. — Clarke County Commissioners will expend $7900 to remodel and improve county jail; will erect two-story additional wing, install cement floors, hot and cold baths, etc.

Ala., Hamilton—Jail.—Marion county will open bids August 13 to erect county jail; fireproof construction; cost $14,000; architect not selected; Mack Pearce may be addressed. (Recently noted to let contract August 11.)

Fla., Tampa—Hospital.—Commissioners of Public Works, D. B. McKay, chairman, will receive bids until August 6 to erect addition to Gordon-Keller Memorial Hospital; certified check for $1000; plans and specifications at office of Bonfoey & Elliott, architects, Tampa. (Recently noted.)

Ga., Carrollton—City Hall, etc.—City will expend $20,000 to erect city hall, including city offices, fire department, auditorium, etc.; 56x100 feet; ordinary construction; pressed brick and wood; stone trimmings; low-pressure (sectional boiler) steam heat; knob and tube system of lighting; hand-power lift; tin roof; plans by Morris & Morris, 525 Atlanta National Bank Bldg., Atlanta, Ga.; recently noted to receive bids until August 1. (See "Machinery Wanted.")

Miss., Greenwood—Jail.—Supervisors of Leflore County, A. R. Bew, clerk, will receive bids until August 5 to remodel and repair residence portion of jail; plans and specifications at office of Mr. Bew.

N. C., Greensboro—City Market, etc.—City voted $20,000 bond issue to erect city market and $15,000 worth of bonds to remodel opera-house and other portions of city hall. Address The Mayor. (See "Road and Street Work.")

N. C., Winston-Salem—Hospital.—City voted $90,000 bond issue for hospital; R. I. Dalton, Mayor. (See "Road and Street Work.")

Tenn., Chattanooga—Swimming Pool, etc. City has plans by Huntington & Sears, James Bldg., Chattanooga, for reinforced concrete swimming pool, wooden bathhouses, etc.; 109x210 feet; cost $10,000. (Recently noted to erect zoo.)

Tex., Brownwood—City Hall and Central Fire Station.—Brownwood Fire Department purchased site on Fisk St. and will erect central station and city hall, which will eventually be purchased by city.

Tex., Dallas—City Hall.—Mauran, Russell & Crowell, St. Louis, Mo., have been engaged as consulting architects for city hall to cost $400,000, for which C. D. Hill & Co., Dallas, are preparing plans. (Recently noted.)

Tex., Fort Worth—Hospital.—City defeated $100,000 bond issue to erect city hospital. Address The Mayor. (Recently noted.)

Tex., Houston—Tuberculosis Camp.—Harris County Commissioners plan to erect tuberculosis camp at county poor farm; 75x50 feet; frame; one story; 75-foot gallery around east front of building; two wards, 16x32 feet each; kitchen, 20x10 feet; H. M. Davis, superintendent.

Tex., Houston—Warehouse and Vault.—City, H. B. Rice, Mayor, will receive bids at office of Dan C. Smith, Jr., City Comptroller and Secretary, until August 12 to erect reinforced concrete warehouse, and at same time will receive separate bids to construct reinforced concrete oil tank vault, all according to plans by City Engineer, and at whose office plans are on file; certified check for $200 with each bid on each building, payable to order of H. B. Rice, Mayor. (Recently noted.)

Tex., Sherman — Fire Department. — City voted $13,000 bond issue to improve fire department. Address The Mayor. (Previously noted.)

Tex., Waco.—Fire Station.—City accepted plans by T. Brooks Pearson, Waco, for fire station at 15th and Herring Sts.; cost $6000.

COURTHOUSES

Miss., West Point.—Clay County Board of Supervisors is having plans prepared by C. J. Harper, Jackson, Miss., for courthouse; stone construction; cost about $100,000. (Recently noted.)

Mo., Linneus.—Linn county voted $60,000 bond issue to erect courthouse. Address County Commissioners.

Tex., Montague.—Montague County Commissioners will receive bids until August 12, through J. E. Strong, County Clerk, to erect courthouse; three stories; 80x120 feet; fireproof; plans by Geo. Burnett, 1702 Amicable Bldg., Waco, Tex. (Previously noted.)

DWELLINGS

Ala., Birmingham.—W. H. Bearden will erect two-story frame residence at Euclid and S. Fifteenth Ave.; cost $6500.

Ala., Birmingham.—E. J. Rowe, 1408 N. 32d St., has plans by Joy Construction Co., Birmingham, for dwelling; two stories; frame; hot-air heat; electric lighting; composition roof; cost $4000. (Recently noted.)

Ala., Birmingham.—R. G. Puris will erect two-story frame residence on Fifteenth Ave.; cost $3000.

Ala., Birmingham.—H. M. Henderson will expend $3000 to $6000, respectively, to erect six-room bungalow and two-story eight-room residence; ordinary construction; hot-air heat; electric lighting; shingle roof; plans and construction by owner. (Recently noted.)

Ala., Birmingham. — Mrs. David Roberts will erect two-story frame residence on S. Altamont Rd.; cost $10,000.

Ala., Birmingham.—Highland Building Co. will erect three two-story frame residences on S. 20th St.; cost $9000.

Ala., Birmingham.—E. W. Ewart will erect residence at 1621 Thirteenth Ave. South; two stories; frame; cost $6000.

Ala., Birmingham.—R. I. Ingalls will erect two-story residence on S. 26th St.; cost $3500.

Ala., Mobile.—S. O. Vickers, representative, purchased over 1000 acres of land near Mobile and will, it is reported, subdivide and erect number of dwellings.

Ala., Stevenson.—Mrs. Sam Willis, Anderson, Tenn., purchased lot and will erect two-story 25x100-foot brick dwelling; plans not ready.

Ark., Little Rock.—Bracy & Beauchamp will erect dwelling at 1820 Spring St.; two stories; frame; cost $3000.

D. C., Washington.—Harry A. Kite, 1333 G St. N. W., will erect 10 two-story dwellings at 615 to 635 Gresham Pl. N. W.; brick; cost $20,000.

D. C., Anacostia.—Garden Memorial Presbyterian Church, Minnesota Ave. S. E., Rev. Geo. M. Cummings, pastor, 1218 V St., will erect manse.

Fla., Miami.—D. W. Moran will erect two-story dwelling; cost $3000.

Fla., Miami.—Dr. Dreibeldis of Reading, Pa., will erect residence.

Fla., Miami.—A. H. Kratz will erect residence.

Fla., Miami.—George C. Bolles will erect bungalow; six rooms and bath; cost $3000.

Fla., Miami.—George T. Warner will erect bungalow; six rooms and bath; cost $3000.

Fla., Miami.—R. C. Gardner has plans by Los Angles Investment Co. for dwelling; 30x45 feet; fireproof construction; electric lighting; asbestos shingle roof; cost $3500. (See "Machinery Wanted.")

Fla., Tampa.—W. H. Brown will erect two-story residence on Watrous Ave. and bungalow on Hills Ave.

Fla., Tampa.—Robert Bucksbaum will erect bungalow on Magnolia Ave., Hyde Park.

Ga., Atlanta.—Phenix Investment Co. will erect two-story frame dwelling at 735 N. Boulevard; cost $4500; construction by day labor.

Ga., Atlanta.—Dr. J. B. Daniel and H. W. Nicholes will erect 81 dwellings on Ponce de Leon, Highland and St. Charles Aves. and Barnett St., Druid Hills, costing from $6000 to $12,000 each; total investment, $1,000,000; residences of different architecture; contractors in charge of Mr. Nicholes, who invites correspondence from architects.

Ga., Savannah.—John T. Collins will erect four two-story and six one-story dwellings on Herndon St. and Herndon Lane.

Ky., Louisville.—Charles Hinkel will erect brick dwelling at 2028 Murray St.; cost $3500.

Ky., Louisville.—J. F. White will erect frame dwelling at 640 S. 34th St.; cost $3000.

Ky., Louisville.—E. R. Schmitt will erect frame dwelling at 3333 W. Broadway; cost $3000.

Ky., Louisville.—Ella F. Kaiser will erect brick veneer dwelling at 689 45th St.; cost $4500.

Ky., Louisville.—H. A. McKnight will erect two-and-a-half-story brick-veneer dwelling in Parson's Court; cost $6000.

La., New Orleans.—J. T. Young of Louisiana Railway & Navigation Co., will erect bungalow; cost $4500.

La., New Orleans.—Mrs. M. C. and R. C. Kelliher will erect two single two-story frame residences; cost $7700.

La., New Orleans.—C. Schmert will erect two two-story frame residences; cost $4086.

La., New Orleans.—W. De Pass will erect two-story frame residence; cost $4200.

Md., Baltimore.—Stanley Bambach, 556 W. Conway St., will erect residence on Chapel Gate La., Ten Hills.

Md., Baltimore.—Charles E. Litsinger, 922 W. 38th St., has plans by F. E. Beall, 213 St. Paul St., Baltimore, for six cottages on Beech Ave. near 23d St.; two stories; ornamental brick; 15x35 feet; cost $12,000.

Md., Baltimore. — Edward J. Storck, 96 Gunther Bldg., purchased about six acres of land north of 31st St. between Calvert St. and Abell Ave.; will erect more than 150 porch-front dwellings and otherwise improve.

Md., Baltimore.—William H. Baker, Jr., 316 S. Sharp St., purchased lot at Woodberry and Central Ave., 156x264 feet, and will erect number of dwellings.

Md., Baltimore.—Frank Novak, 647 N. Kenwood Ave., will erect 10 dwellings on East Madison St.; two stories; brick; tin roof; hot-air furnace; plans by J. F. Hirt, 829 Lazerne St., Baltimore; dwellings to be ordinary construction; gas and electric lighting; cost $10,000; construction by owner.

Md., Baltimore.—John F. Hegler, 1155 W. Cross St., purchased site 74x166 feet on Lafayette Ave. near Florence St., and will erect number of dwellings.

Md., Baltimore.—Murray & Haynes, 1709 N. Ellamont St., will erect two-story dwelling on Presbury St.; brick; slag roof; hot-water heat; 25x32 feet; cost $3000.

Md., Baltimore.—John T. Donohue, 1808 Thames St., purchased site at Linwood Ave. and Fleet St., 301x70 feet, and will erect number of two-story dwellings.

Md., Baltimore.—Kathland Realty & Construction Co. has plans by Henry J. Tinley, 312 N. Charles St., Baltimore, for bungalow on Springdale Ave. near Oakford Ave.; frame; stone foundation; slate roof; steam heat; electric lights; 26x46 feet; cost $3500; construction by owner.

Miss., Sumner.—J. H. Hurt will open bids about September 1 to rebuild dwelling; five or six rooms; mill construction; grates; acetylene lighting; shingle roof; cost $3500; J. D. McClellon, probable contractor, Sumner. (Recently reported burned.)

Miss., Vicksburg.—J. J. Lum will repair residence reported damaged by fire.

Mo., Kansas City.—L. B. Ammon will erect stone veneer dwelling at 724 W. 61st St. Ter.; cost $4000.

Mo., Kansas City.—W. E. Griffin will erect stucco dwelling at 3347 Agnes St.; cost $3000.

Mo., Kansas City.—F. O. Moebus will erect bungalow on Madison Drive, Westmoreland.

Mo., Kansas City.—C. B. Towney will erect frame and stucco dwellings at 3737 and 3742 Montgall St.; cost $2500 each.

Mo., Kansas City.—A. Freeman will erect three frame dwellings on East 9th St. and one at 816 Wheeling St.; cost $2000 each.

Mo., Kansas City.—C. A. Hamrick will erect stone veneer dwelling at 3447 Agnes St.; cost $3000.

Mo., Kansas City.—J. H. Cleavor will erect stone veneer dwelling at 702 Fuller St.; cost $3000.

Mo., St. Louis.—William Ferris will erect one-story dwelling at 4739 Cote Brilliants; cost $4200.

Mo., St. Louis.—Henry E. Paulk will erect residence in Kingsbury Pl.

Mo., St. Louis.—Joseph Degenhardt will erect two-story dwelling at 1221 McCausland St.; cost $3500.

Mo., St. Louis.—J. H. Ioenkoetter will erect two-story dwelling at 1462 Adelaide St.; cost $4100.

Mo., St. Louis.—Gertrude B. Black will erect three-story dwelling at 3808 Castleman St.; cost $5000.

Mo., St. Louis.—John F. Shepley will erect residence in Portland Pl.; three stories; cost $25,000.

Mo., St. Louis.—William W. Worstell will erect three one-story brick cottages in Koch's Homestead.

Mo., St. Louis.—Henry C. Behle has plans by Kennerly & Iredell, St. Louis, for residence at Kingsbury Blvd. and Belt Ave.; three stories; brick and stone; Spanish tile roof; 14 rooms; cost $8000. (Previously noted.)

Mo., St. Louis.—Fred A. Ranninger will erect Queen Anne style residence on Humphrey St.; seven rooms; hot-water heat; cost $5000.

Mo., St. Louis.—E. Vickery will erect two one-story dwellings at 4434-36 Ellenwood St.; cost $3000.

Mo., St. Louis.—W. B. Franklin will erect residence on Waterman Ave.

Mo., St. Louis.—Louis Bergmann will erect residence on Holly Ave.; cost $5000.

Mo., St. Louis. — Minnie Hortleder will erect two-story dwelling at 6910 Plateau St.; cost $3000.

Mo., St. Louis.—Church of Our Lady Help of Christians, Rev. Caesar Spigardi, pastor, is having plans prepared for nuns' residence. (See "Schools.")

N. C., Charlotte.—Charlotte Consolidated Construction Co. will erect two dwellings on East Blvd., to be occupied by David Owens and C. V. Palmer; cost $11,000.

N. C., Wadesboro.—Dr. W. J. McLendon has plans by Wheeler & Stern, Charlotte, N. C., for three bungalows; seven rooms each; frame; central heating and lighting plant; shingle roof; cost $10,000.

Okla., Oklahoma City.—E. L. Aurelius will erect frame dwelling at 1539 W. 31st St.; cost $3000.

Okla., Oklahoma City.—A. C. Enochs, 545 W. 30th St., will erect residence; two stories; brick veneer; cost $3000.

S. C., Orangeburg.—Adam Moss will soon open bids to erect residence; ordinary construction; brick veneer; hot-water heat; cost $8000; plans by George E. Lafaye, Columbia, S. C. (Recently noted.)

Tenn., Chattanooga.—John A. Patten is having plans prepared by W. T. Downing, Atlanta, Ga., for residence; will construct roads, servants' quarters, etc.

Tenn., Clarksville.—D. B. Wood is planning to erect two cottages on Madison St.

Tenn., Columbia.—Charles A. Parker, Jr., will erect residence in Athenaeum Grove.

Tenn., Knox County.—W. H. Seward, Knoxville, Tenn., purchased tract between Concord and Bearden, Tenn., and is having plans prepared by Baumann Bros., Knoxville, Tenn., for residence; will establish poultry farm, erect suitable buildings, etc.

Tenn., Memphis.—Dr. Max Henning has plans by Hanker & Cairns, Memphis, for residence on Central Ave.; cost $20,000.

Tenn., Memphis.—H. P. Snowden will erect residence at Willett St. and Neatherwood Ave.; cost $3000.

Tenn., Nashville.—M. P. Bailey will erect frame dwellings on Fatherland and Lafayette Sts.; cost $7500.

Tenn., Nashville.—M. B. Gatewood will erect residence at 818 Woodland St.; brick veneer; metal roof; cost $3000.

Tenn., Nashville.—John G. Underwood will erect residence on Fall St.

Tenn., Riceville.—Walter Smith will erect residence.

Tex., Austin.—Miss Kate Casparis will erect two-story dwelling at 1900 Nueces St.; cost $3000.

Tex., Dallas.—Mrs. Sallie Gidcomb will erect two-story frame residence at 1807 Mosher St.; cost $3000.

Tex., Dallas.—W. R. Lynch will erect nine-room frame residence; cost $3000.

Tex., Dallas.—W. K. Hale will erect four-room frame cottage at 4221 Cole St.; cost $3000.

Tex., Houston.—Jesse G. Dudley will erect eight-room residence on Travis St.; cost $4000.

Tex., Lubbock.—Roscoe Wilson will receive bids until August 6 to erect residence; six rooms; one and a half stories; brick; hot-air heat; 42x55 feet; basement; certified check for $100; plans at office of Henry Mount, architect, Lubbock.

Tex., San Antonio.—T. M. Paschal will erect two-story dwelling on Harwood St.; cost $3200.

Va., Dublin.—Wm. N. Mebane will erect residence; brick cased; bids received until July 31.

Va., Norfolk.—N. B. Ethridge will erect residence at Chesapeake and Park Aves.; cost several thousand dollars.

Va., Norfolk.—A. S. Gornto will erect residence on 13th St.; brick and frame; cost $6500.

Va., Richmond.—R. B. Felthaus will erect residence on Harrison St. between Main St. and Floyd Ave.; two stories; brick; cost $4000.

Va., Richmond.—Davis Bros. will erect two brick dwellings on Floyd St. near Elm St.; cost $12,000; 44x70 feet; plans and construction by owner.

Va., Richmond.—Henry S. Wallerstein will erect five detached two-story frame dwellings on Oakwood Ave. between P and Q Sts.; cost $3650.

GOVERNMENT AND STATE

Fla., Chattahoochee—Hospital.—Board of Commissioners of State Institutions of Florida invites proposals until September 3 to erect receiving hospital for Florida Hospital for Insane; 42x222 feet; two stories; brick walls; slate roof; drawings and specifications may be seen at Governor's office, Tallahassee, Fla., or can be secured from Bishop & Greer, architects, Atlanta and Valdosta, Ga., on deposit of $15; certified check for $500, payable to State Treasurer.

Ga., Augusta — Postoffice. — Treasury Department, Oscar Wenderoth, supervising architect, Washington, D. C., will erect postoffice; three stories; probably Georgia marble; cost $250,000. (Recently noted.)

Md., Cambridge — Hospital. — Phillips Lee Goldsborough, Annapolis, Md., J. Hopper Bosley and others, committee, selected 225-acre tract about two miles from Cambridge as site for Eastern Shore State Hospital for Insane, for which $200,000 bond issue was authorized. (Previously noted.)

Okla., Guthrie—Postoffice.—Treasury Department, office of supervising architect, O. Wenderoth, Washington, D. C. Proposals received at this office until September 6 for extension, remodeling, etc. (including plumbing, gaspiping, heating apparatus, electric conduits and wiring, lighting fixtures and approaches), of United States postoffice and courthouse at Guthrie; four stories and basement; ground area about 4800 square feet; fireproof construction except ceiling and roof; brick, faced with stone and terra-cotta trimmings; slate roof; drawings and specification obtainable from custodian at Guthrie, or at this office, at discretion of supervising architect.

Tex., Austin—Gymnasium.—Bids received by Joe Koen, president of trustees of Texas State Deaf and Dumb Asylum, until August 1 to erect gymnasium; certified check for $1000, payable to Mr. Koen; plans and specifications at office of Endress & Walsh, architects, Little Field Bldg., Austin, or may be had on deposit of $25.

Va., Petersburg—Hospital.—Special Board of Directors, William F. Drewry, superintendent, will receive bids until August 5 for material and construction at Central State Hospital of (1) about one mile of sewer pipe line from hospital to Appomattox River, to consist in part of cast-iron pipe carried on steel viaduct, and in part of terra-cotta pipe; (2) brick wing to building for criminal insane; (3) frame pavilion for tubercular patients; plans and specifications on application.

HOTELS

Ala., Jasper.—O'Rear & Banks will remodel Hogue Hotel and erect addition to contain 45 rooms; three stories; brick.

Fla., Fort Pierce.—George F. Young, proprietor of Five and Ten Cent Store, will erect hotel; 30 rooms; frame construction, with veneer of brick or cement blocks; 80x100 feet.

Mo., St. Louis.—Elmer E. Campbell is reported as considering erection of annex to New Regent Hotel to provide about 100 rooms.

S. C., Greenwood.—Joel S. Bailey and associates are having plans prepared by A. Ten Eyck, Atlanta, Ga., for Oregon Hotel to replace burned structure; 70x150 feet; six stories; 25 rooms, 25 baths, dining-room and kitchen; fireproof; two-pipe system of steam heat; electric lighting; electric elevator; cost $90,000; will open bids about October 1. (Previously noted.)

Tex., Beeville.—E. J. Kinkler and A. F. Rees are having plans prepared for converting opera-house into hotel; will erect fourth story; 40 to 60 rooms, foyer and dining-room; cost $18,000 to $20,000.

Tex., Natalia (not a postoffice).—Medina Irrigation Co., San Antonio, Tex., has plans by Atlee B. Ayres, San Antonio, Tex., for hotel; two stories and basement; Spanish style; 30 bedrooms; beamed ceiling in dining-room; steam heat; cost about $38,000. (Recently noted.)

Va., Virginia Beach.—C. F. Spotswood opened bids to erect Spotswood Inn; two stories and basement; frame; 84x110 feet; steam heat; F. C. Rice, Virginia Beach, is lowest bidder at $17,900; plans by H. Abrames, Monticello Arcade Bldg., Norfolk, Va. (Recently noted.)

W. Va., Wheeling. — E. B. Carney of Wheeling, P. E. Shuck of Youngstown, O., and C. T. Alexander are organizing company to erect proposed New Windsor Hotel; 16 stories; fireproof; 200 rooms; cost $400,000. Mr. Carney wires Manufacturers Record: "Not entirely settled until middle of August."

MISCELLANEOUS

Ala., Bessemer—Hospital.—W. E. Benns, Birmingham, Ala., and T. J. Skinner prepared plans for proposed hospital building on Third Ave. between 17th and 18th Sts.; brick and concrete; cost $20,000.

Ala., Mobile—Home.—Little Sisters of the Poor, Hannon Bldg., Monterey St., is having plans prepared by Downey & Denham, Mobile, for home; cost $90,000.

Ala., Tuscaloosa — Clubhouse. — Edgar L. Clarkson and Hugo Friedman are interested in establishment of clubhouse, golf links and boathouses; contemplate purchasing site of 25 acres on Warrior River.

Fla., Tampa—Clubhouse.—Centro Asturiano Society will erect clubhouse to replace burned structure; cost $75,000.

Ga., Tallapoosa—Auditorium.—A. V. Howe and G. B. Evans will rebuild store and auditorium recently reported burned. (See "Stores.")

Ky., Louisville — Library. — Louisville Free Public Library, E. J. O'Brien, chairman of committee, accepted plans by Val P. Collins, Louisville, for Portland branch library at High Ave., Portland Ave. and 33d St.; 60x72 feet; library-room proper to accommodate 10,000 volumes; auditorium to seat 300 people; exterior of light-colored cream pressed brick with Bowling Green stone trimmings and windows; green tile roof with stone cornices and copper gutters; gymnasium in basement. (Previously noted.)

Ky., Louisville—Sheds.—Mengel Box Co. will erect two frame sheds at Eleventh and Kentucky Ave.; cost $5000.

La., New Orleans—Monastery.—Poor Clare Sisters will erect monastery.

La., Shreveport—Swine Barn.—State Fair Association has plans by C. W. King, Shreveport, for swine barn at fair grounds; 224 pens; concrete; cost $10,000.

N. C., Greensboro—Orphanage.—Dr. J. R. Reitzell, High Point, N. C., may be addressed relative to improvements to Methodist Orphanage Home recently reported to cost $15,000.

N. C., Wilmington—Clubhouse.—Cape Fear Club has plans by J. F. Leitner, Wilmington, for clubhouse at 2d and Chestnut Sts.; 80x100 feet; ordinary construction; low-pressure steam; slate roof; to contain gymnasium and swimming pool; cost $60,000; date of opening bids not determined.

S. C., Aiken—Hospital.—Aiken County Hospital Association, Mrs. Daniel Crosland, president, plans to erect hospital.

Tex., Fort Worth—Bathhouse.—Fort Worth Stockyards Co. will erect bathhouse for employes; fireproof; brick and concrete; shower baths, etc.

Tex., Terrell — Hospital. — Managers of North Texas Hospital for Insane rejected all bids to erect two tuberculosis cottages; will have plans revised and probably invite new bids. (Recently noted.)

Va., Richmond—Clubhouse.—Italian Beneficial and Social Society of Richmond, A. Casci, president, is having plans prepared by Fisher & Rabenstein for clubhouse on Broad St. near Allison St.; three stories; ornamental front; lower floor for stores; cost $30,000 to $40,000. (Recently noted.)

RAILWAY STATIONS, SHEDS, ETC.

Ala., Selma.—Southern Railway, B. Hermann, chief engineer, 1300 Pennsylvania Ave. N. W., Washington, D. C., will remodel freight depot, erect outbound freight shed 300x25 feet, with platform 60 feet long at east end, platform 325 feet long between present depot and new structure; team tracks with paved driveways rearranged north of outbound sheds. (Recently noted.)

Ark., Helena.—Missouri & North Arkansas Railroad, E. E. Mashburn, assistant engineer maintenance of way, Eureka Springs, Ark., will erect $50,000 passenger and freight station; will also erect $3000 depot station in West Helena. (Previously noted.)

Ga., Albany.—Albany Passenger Terminal Co. will, it is reported, erect passenger station.

Md., Roslyn.—Western Maryland Railway has plans by C. M. Anderson, 324 N. Charles St., Baltimore, Md., for passenger station; one story; frame; slate; cost $5000.

N. C., Charlotte.—Seaboard Air Line Railway, W. L. Seddon, chief engineer, Portsmouth, Va., will erect freight depot; 99x396 feet; brick; standard construction; 10-foot platform length of building on east; depot proper 45 feet wide; driveway 45 feet wide on west side; cost $50,000 to $75,000.

N. C., Gastonia.—Southern Railway, B. Hermann, chief engineer, 1300 Pennsylvania Ave. N. W., Washington, D. C., will erect passenger station; pressed brick; 110x230 feet; exclusive of baggage-rooms and sheds; tile roof; steam or hot-water heat; white waiting-room to contain 1500 square feet and colored waiting-room 900 square feet floor space; concrete yards and walks; cost $20,000 to $25,000.

S. C., Columbia.—Southern Railway, H. Hermann, chief engineer, 1300 Pennsylvania Ave. N. W., Washington, D. C., will erect outbound freighthouse 300x35 feet, with platform at south end 150 feet long; paved teamway 40 feet wide; will construct team tracks with paved driveways to increase capacity of tracks from 31 to 66 cars; increase house and transfer platform track facilities from 81 to 166 cars.

Tenn., Dyersburg.—Birmingham & Northwestern Railroad, Mike Harvey, chief engineer, Jackson, Tenn., will erect depot.

Tex., Victoria.—St. Louis & San Francisco Railroad, M. C. Byers, chief engineer, Springfield, Mo., will erect freight depot and $45,000 passenger station.

SCHOOLS

Ala., Fayette. — Fayette County School Board will erect high school; cost $10,000.

Ala., Flat Rock, P. O. Fabius.—Flat Rock high school is having plans prepared by Benjamin G. Houser, Stevenson, Ala., after August 1 Fabius, Ala., for improvements and additions to school; will erect 51x63-foot school building; two stories; brown sandstone, pitched faced, with chisel-drafted margin; rubbed faced trimmings; building now occupied will be converted into boys' hall; also erect residences for professors, install electric-light and water-works plant; to be operated by power from Flat Rock Creek; planing mill, etc.; construction by Mechanics Arts Department, under supervision of architect.

Ark., Arkadelphia.—School Board will erect school at Bethlehem Settlement; 32x48 feet; two stories; cost $3000.

Ark., Little Rock.—Clyde A. Ferrell, architect, 210½ Louisiana St., Little Rock, will receive bids until August 2 to erect school on Fourche Dam near Little Rock; certified check for $200, payable to Earl Frazier, secretary of School Board; plans at office of architect as above.

Ga., Lagrange.—City will vote in September on $215,000 bond issue for school improvements, etc. (See "Water-works.")

Ga., Forsyth.—City will vote August 2 on $30,000 bond issue to erect high school. Address The Mayor.

Ky., Carrollton.—Carroll County Commissioners, Ernest Llewellyn, chairman, will erect school in Cox school district.

Ky., Whitesburg.—Board of Education of Letcher County will receive bids until August 16 to erect high-school building; two stories and basement; brick and stone; cost $12,000; certified check for $200; further particulars may be had by addressing James P. Lewis.

La., St. Bernard.—School Board, Clement Story, Superintendent of Education, will erect school at Borgnemouth; cost $4000 to $7000.

Md., Baltimore.—Board of Awards, James H. Preston, president, will receive bids at office of Richard Gwinn, City Register, City Hall, until August 7 for material and erection of No. 22 School at Hamburg, Wyeth, Scott and Nanticoke Sts.; certified check for $500, payable to Mayor and City Council; drawings and specifications at office of Clarence E. Stubbs, Inspector of Buildings, City Hall. (Previously noted.)

Md., Baltimore.—Board of Awards opened bids to erect No. 6 school on South Ann St. near Canton Ave.; B. F. Bennett Building Co., 123 S. Howard St., Baltimore, is lowest bidder at $113,700; plans by F. E. and H. R. Davis, 220 St. Paul St., Baltimore, call for 16-room structure, with sun parlor above; brick; sandstone and granite trimmings; 170x86 feet. (Recently noted.)

Miss., De Kalb.—Town voted $10,000 bond issue to erect school. Address Town Clerk.

Mo., Columbia.—Catholic congregation will erect parochial school. Address The Pastor, Catholic Church.

Mo., St. Louis County.—Archbishop John J. Glennon of St. Louis Catholic Diocese, St. Louis, Mo., purchased Drummond farm of 370 acres in St. Louis county and will erect $500,000 building for theological seminary.

Mo., St. Louis.—Catholic High School Association, Rev. John J. Glennon, president, acquired St. Vincent's Seminary property; will make improvements and use for girls' high school.

Mo., St. Louis.—Church of Our Lady Help

of Christiana, Rev. Caesar Spigardi, pastor, is having plans prepared by Barnett, Hayes & Barnett, St. Louis, for First Italian parochial school at 10th and Washington Sts. to accommodate about 600 children, and residence for nuns; cost $35,000.

Mo., St. Louis.—James R. Bussell will erect conservatory of music building at 3528 Lawton Ave.

N. C., Winston-Salem.—City voted $60,000 bond issue for schools; R. I. Dillon, Mayor. (See "Road and Street Work.")

Okla., McAlester.—School Board of District No. 80 will receive competitive plans, specifications and estimates for construction of four-room additions to Fourth and Sixth ward schools and to negro high school; additional plans and specifications covering heating systems in all buildings except high school; W. E. Beatty, president, and Bertha L. Gordon, secretary of board.

Okla., Muskogee.—Muskogee County Commissioners, W. E. Looper, County Clerk, will receive bids until August 5 to erect school in District No. 17; certified check for 10 per cent. amount of bid; plans and specifications at office of County Superintendent.

Okla., Pauls Valley.—State Board of Affairs, Oklahoma City, Okla., rejected all bids to erect cottages and power plant at training school for boys; plans by A. C. Davis, Shawnee, Okla. (Recently noted.)

S. C., Columbia.—City will open bids about September 15 to erect grammar school; 190x75 feet; fireproof stairs and corridors; remainder ordinary construction; steam or furnace heat; tin roof; cost $50,000; plans by Wilson & Sompayrac, Columbia, who may be addressed. (Recently noted.)

S. C., Hickory Grove.—Building committee of Hickory Grove Graded School, N. M. McDill, chairman, will receive bids until August 10 to erect graded school; two stories; metal roof; cost $6000; certified check for 5 per cent. amount of bid, payable to committee; plans and specifications at Bank of Hickory Grove.

Tenn., Denmark.—Madison County Board of Education, Jackson, Tenn., will expend $2750 to remodel high school. (See "Schools, Contracts Awarded, Tenn., Jackson.")

Tenn., Johnson City.—City will open bids through Baumann Bros., Knoxville, Tenn., about September 1 to erect high school building; 111x142 feet; fireproof construction; steam heat; electric lighting; gravel roof; cost $55,000. (Recently noted.)

Tenn., Knoxville.—Park City School Committee will receive bids until August 5 to erect addition to Park City High School and addition to colored school; plans at office of George F. Barber & Co., architects, Van Deventer Bldg., Knoxville.

Tenn., Mascot.—Knox County Board of Education, H. A. Cruze, chairman, Knoxville, Tenn., and American Lead, Zinc & Smelting Co., will erect school to accommodate about 200 children.

Tex., Bay City.—E. A. Stafford will erect building to be occupied by Bay City Business College; two stories; imitation rock.

Tex., Bell Falls.—Trustees of Bell Falls independent school district will expend $10,000 to erect school; 64x44 feet; mill construction; gravel roof; plans recently noted being prepared by H. D. Pampel, City Bank Bldg., Temple, Tex., who may be addressed.

Tex., Benbrook.—Benbrook School District trustees will erect school; brick; cost $3500.

Tex., Brenham.—City, William Lusk, Mayor, will erect negro school in Camptown; plans by A. W. Watson, Austin, Tex.; brick; two stories and basement; cost $20,000.

Tex., Collegeport.—Collegeport School District No. 17 will issue $12,000 of bonds to erect school; brick. Address District School Trustees.

Tex., Dallas.—M. F. Horton, Dallas County Superintendent of Education, sold $6000 bond issue and will erect four-room brick school at Victory Stop, in District No. 9.

Tex., Deport.—City will issue $18,000 of bonds to erect school. Address The Mayor.

Tex., El Paso.—School Board will erect high school; estimated cost $300,000.

Tex., Lavon.—Bids will be received at First National Bank, Lavon, and office of M. L. Waller, architect, Fort Worth, Tex., until August 5 to erect eight-room brick school; plans on file at above addresses.

Tex., Peacock.—J. L. Meadows, chairman of School Board, will receive bids until August 6 to erect two-story brick school; certified check for 5 per cent. amount of bid; plans and specifications on deposit of $10 at offices of Mr. Meadows, Peacock, and C. H Leinbach, architect, Mineral Wells, Tex.

Tex., Sherman.—City voted $75,000 bond issue to erect schools. Address The Mayor. (Previously noted.)

Tex., Smithfield.—Smithfield Independent school district trustees will issue $7500 of bonds to erect cement or brick school.

Tex., Swan.—Swan school district voted $6000 bond issue to erect school. Address district school trustees.

Tex., Tuscola.—T. G. Cunningham, J. E. Casey and Ab Taylor, school trustees, will erect $7000 brick school.

Tex., Van Vleck.—City will erect $5000 school building. Address The Mayor.

Va., Suffolk.—Suffolk Normal and Training School trustees will erect addition to school; cost $7000.

W. Va., Williamson.—Board of Education will receive bids until August 10 for alterations and additions to two schools; plans and specifications at office of secretary of board at Williamson and Pedigo & Garry, architects, Bluefield, W. Va.

STORES

Ala., Tuscaloosa.—Central Foundry Co., general offices 37 Wall St., New York, has plans by E. J. Ostling for commissary building; one story and basement; brick and concrete; 50x125 feet; plate-glass windows.

Fla., Lakeland.—H. D. Bassett will erect business building on Kentucky Ave.; lower floor for stores; upper floor for apartments.

Fla., Miami.—Board of Trade has plans for building; lower floor for mercantile purposes. (See "Bank and Office.")

Fla., Miami.—Richard Ashby will erect reinforced concrete business block on 13th St.; two stories; 63x100 feet; metal roof; day labor.

Fla., Tampa.—A. P. Stuckey will erect store building at Nebraska and Newcomb Aves.; cost $11,500.

Fla., Winter Haven.—M. Engleson is receiving bids to erect brick business block; two stories; 28x70 feet.

Fla., Winter Park.—F. W. Shepherd will erect two-story concrete and white brick building on Park Ave.; plans by Percival Hutton, Winter Park.

Ga., Atlanta.—O. Weinminster will expend $5000 to repair building at 145-47 Edgewood Ave.

Ga., Athens.—W. S. Holman will erect business building at Clayton and Lumpkin Sts.; five stories and basement; double elevator service; fireproof.

Ga., Atlanta.—William Oldknow will erect one-story brick building at 272 Peters St.; cost $4000; construction by day labor.

Ga., Macon.—Leon S. Dure will erect store at 5th and Mulberry Sts.; brick; cost $5000.

Ga., Macon.—C. B. Willingham will erect brick store on 4th St.; cost $5000.

Ga., Tallapoosa.—A. V. Howe and C. B. Evans will rebuild structure; 80 feet square; two stories; first floor to contain four stores; second floor, auditorium; basement under rear half of building; brick walls; gravel roof. (Recently reported burned.)

Ky., Louisville.—Dr. W. Walling will remodel building at 235 S. 5th St. at cost of $6950.

Ky., Uniontown.—Knights of Columbus will erect store and lodge building. (See "Association and Fraternal.")

Mo., Kansas City.—Westport Masonic Building Co. will erect store and hall. (See "Association and Fraternal.")

Mo., Kansas City.—Claud Parlitt will erect brick store and apartment building at 509 E. 14th St.; cost $6500.

Mo., St. Louis.—Henry Flair will erect store building at 2009 Arsenal Ave.; cost $6000.

Mo., St. Louis.—James Myers will erect one-story stores at 5542 to 5548 Suburban St.; cost $3900.

Mo., St. Louis.—Felix Scalzo will erect business building at Garrison Ave. and Morgan St.

Mo., St. Louis.—Delor Realty Co. will erect two story mercantile building at 14 N 9th St.; cost $6000.

Mo., St. Louis.—Odd Fellows Hall Co. will expend $15,000 to alter store at 9th and Olive Sts. for F. A. Steer Furnishing Goods Co.; will provide glass front with granite piers, mezzanine floor, etc.

Mo., St. Louis.—Collier estate will improve store building at Broadway and St. Charles St. for B. Nugent & Bro. Dry Goods Co.; will connect with present Nugent store under and above ground.

Mo., St. Louis.—Income Leasehold Co. will expend $5000 to repair stores at 112-120 N. 4th St.

Mo., St. Louis.—Louis Cella will erect one-story store at 620 N. 9th St.; cost $5000.

Mo., St. Louis.—Thurles Real Estate Co. will erect one-story building; cost $7000.

Mo., Kansas City.—Fred Woiferman will erect business building on 59th St.; cost $15,000.

N. C., Elm City.—G. A. Barnes, Rocky Mount, N. C., will open bids August 15 to erect store; 60x100 feet; ordinary construction; electric lighting; tin roof; cost $7000; plans by Harry R. Wagner, Rocky Mount.

S. C., Charleston.—Bluestein Bros., 494 King St., will receive bids until August 15 to remodel store at King and Mary Sts.; three stories; 120 feet long; slate roof; plans by J. D. Newcomer. (See "Machinery Wanted.")

S. C., Columbia.—McNanitie, Keenan & Voucher will erect store in 900 block Gervais St.; cost $5500.

S. C., Greenville.—W. T. Henderson and associates have plans for store, office and theater building. (See "Theaters.")

Tenn., Big Sandy.—J. F. Dowdy will expend $4000 to erect store building; 44x100 feet; fireproof construction; hot-air heat; acetylene lighting; hand elevator; asphalt or metal roof; owner will supervise construction. (Recently noted.)

Tenn., Chattanooga.—J. H. Wardlaw, F. A. Hood and W. T. McDowell are reported as to erect building at 5th and Market Sts.; three stories; pressed brick; 60x100 feet; three storerooms on first floor; upper floors probably for apartments; cost $15,000.

Tenn., Union City.—E. P. Grisson will expend $15,000 to erect business building; 25x100 feet; fireproof construction; hot-water heat; tar and gravel roof; plans by H. P. Taylor, Union City; bids opened August 1. (Contract recently noted let.)

Tenn., Knoxville.—F. W. Woolworth & Co., New York, will erect store building at 509-511 S. Gay St.; four stories.

Tenn., Memphis.—J. Goldsmith & Sons Company has plans by Hanker & Cairns, Memphis, for business building; one story; concrete; 150x150 feet; fireproof; metal roof; construction to permit dividing into seven stores or using as one store; cost $40,000.

Tenn., Memphis.—Otto Bailer will probably erect store building on Main St. near Butler Ave.

Tex., Houston.—I. Kapner will erect two-story brick store on Gabel St.; cost $4150.

Tex., Houston.—Mason Building Co. will open bids about August 20 to erect store and office building recently noted. (See "Bank and Office.")

Tex., San Antonio.—P. Panagiotopulos, Nashville, Tenn.; Antonious Boozalis, Oklahoma City, Okla.; James Boozalis, Nashville, Tenn., and C. N. Loutos, Birmingham, Ala., purchased site on West Houston St. and will, it is reported, erect business building.

Tex., San Antonio.—Mrs. Carrie Cobb will expend $6000 to erect brick addition on Garden St.

Tex., Waco.—C. L. Johnson & Son will erect additional and permanent building at 5th and Webster Sts.

Tex., Waco.—Sanger Bros. will expend several thousand dollars to remodel second floor of store building.

Va., Richmond.—Italian Beneficial and Social Society of Richmond is having plans prepared for clubhouse and store building. (See "Miscellaneous Structures.")

Va., Suffolk.—S. Isabel Rison will erect store and apartment building at Pinner and Washington Sts.; three stories; brick; two stores and four apartments.

W. Va., Grafton.—H. E. Wehn will erect building 34x100 feet; semi-fireproof construction; steam heat; electric lighting; asphalt roof; plans and construction by owner. (Recently noted.)

THEATERS

Ala., Mobile.—Wells Amusement Co., Jake Wells, president, Richmond, Va., leased Lyric Theater and will expend $4000 to $5000 to remodel same.

Ala., Birmingham.—Karl Hoblitzelle, president of Interstate Amusement Co., Majestic Theater Bldg., Chicago, Ill., will erect Hippodrome Theater; seating capacity 3000.

Mo., St. Louis.—Friester's Park Amusement Co. will erect one-story airdome at 4057 S. Grand Ave.; cost $25,000.

Okla., Chickasha.—J. D. Sugg, San Angelo, Tex., will erect theater and office building. (See "Bank and Office Buildings.")

S. C., Greenville.—W. T. Henderson and associates have plans by F. H. and J. G. Cunningham, Greenville, for arcade building to contain stores, offices and theater. (Previously noted.)

Va., Richmond.—Virginia Theater Co. will, it is reported, expend $10,000 for improvements to Academy of Music, to include reinforced-concrete platform, enlargement of exits, etc.

WAREHOUSES

Ga., Augusta.—R. J. Bates will erect warehouse on Broad St.; one-story and basement; area of 26,000 square feet; cost $20,000.

Ga., Moultrie.—Dalton Bros. Co. will expend $20,000 to erect wholesale grocery warehouse; begin construction within next 60 days; plans not determined. (Recently noted.)

Ky., Augusta.—Farmers' Loose Leaf Tobacco Warehouse Co. incorporated with $15,000 capital stock by R. P. Hamilton, B. F. Barkley, John O'Neill and others; will erect warehouse.

Ky., Lexington.—Henry M. Bosworth, Johnson N. Camden of Woodford county, Claud Bosworth of Fayette, Ky., and Silas Shelburne, Lexington, are reported as to erect warehouse with daily capacity of 500,000 pounds of tobacco; cost $75,000 to $100,000. (Recently noted.)

Md., Baltimore.—George J. Huber, 872 Columbia Ave., is having plans prepared by Henry J. Tinley, 312 Charles St., to erect warehouse at 523 Scott St.; four stories; brick construction; mill-finished exterior; electric elevator; fireproof; contractors estimating are J. F. Farley, 401 McCulloh St., and J. H. Cross, 1026 Decker St.; cost $3000.

Miss., Gulfport.—Gulf & Ship Island Railroad Co., W. H. Gardiner, Jr., chief engineer, will expend $80,000 to erect warehouse; 75x1000 feet; fire walls; galvanized-iron siding; electric lighting; prepared paper roofing; plans and construction by company. (Previously noted.)

S. C., Columbia.—R. L. Bryan Company will erect fireproof warehouse in 1300 block Gadsden St.; cost $9800.

Tex., Cuero.—Guadalupe Valley Cotton Mills will erect warehouse; one story; 100x100 feet.

Tex., Houston.—City, H. B. Rice, Mayor, will receive bids until August 12 to erect warehouse, etc. (See "City and County.")

Tex., Houston.—Peden Iron & Steel Co. has issued bonds for $50,000 and wires Manufacturers Record: "Improvements will consist of additional warehouse and office room; reinforced concrete construction; both Houston and San Antonio." (Houston improvements previously noted.)

Tex., San Antonio.—Peden Iron & Steel Co. will build warehouse and office room; reinforced concrete construction. (See Tex., Houston.)

Va., Alexandria.—National Biscuit Co., main office New York, will erect branch warehouse at Washington and Wilkes Sts.

BUILDING CONTRACTS AWARDED

APARTMENT-HOUSES

Okla., Muskogee.—Dr. C. C. Way, 208 Estes Bldg., has plans by and awarded contract to Bazwell & Davidge, Muskogee, to erect apartment-house recently noted; 75x66 feet; fireproof construction; section steam boiler, 2000 feet radiation; electric lighting; composition tar and gravel roofing; cost $12,000. (See "Machinery Wanted.")

Tenn., Memphis.—Dave Derman awarded contract to erect store and apartment building.

Va., Norfolk.—Homer Moore awarded contract to Turpin Bros., Norfolk, to erect apartment-house and studio; 30x76 feet; ordinary construction; hot-water heat; red slate roof; cost $10,000; plans by Lee & Diehl, Norfolk. (Recently noted.)

W. Va., Grafton.—Mrs. Ada Bush awarded contract to J. D. Bailey, Grafton, to erect apartment-house; four stories; frame.

ASSOCIATION AND FRATERNAL

Tex., Denison.—Denison Lodge No. 161, Independent Order of Odd Fellows, awarded contract to M. Thorn, Denison, to erect lodge building; 50x120 feet; ordinary construction; brick; cost $9000; plans by John Tulloch, Sherman, Tex. (Recently noted.)

Va., Amherst.—Independent Order of Odd Fellows and Ancient Free and Accepted Masons awarded contract to J. K. Thompson, Amherst, to erect hall; 75x40 feet; two stories; gas lighting; cost $5000. (Recently noted.)

BANK AND OFFICE

Ark., Warren. — Merchants & Planters' Bank awarded contract to Nickels & Burnett, Warren, to erect bank and office building; 70x90 feet; brick; steam heat; electric lights; cost $20,000; plans by Witt, Seibert & Co., Texarkana, Ark. (Previously noted.)

Fla., Fellsmere. — Fellsmere State Bank awarded contract to R. D. Waring, Kissimmee, Fla., to erect bank building; one story; brick; tile roof; 38x48 feet; cost $6500; plans by Ludlam & MacDonough, Kissimmee, Fla. (Recently noted.)

Md., Hillsboro.—Charles Jarrill & Co. will expend $5000 to erect building for Hillsboro Bank; 25x40 feet; brick; asbestos roof; plans by W. D. Brinckle, 2616 W. 16th St., Wilmington, Del.; contract recently noted awarded to George E. Lane, Queenstown, Md.

Miss., Ocean Springs.—Farmers & Merchants' State Bank will expend $10,000 to erect bank building; 45½x55 feet; asbestos roofing; plans by Noland & Torre, 415 Hennen Bldg., New Orleans, La.; contract recently noted awarded to Chevally & Fursden, Gulfport, Miss.

N. C., Wadesboro. — Parsons Drug Co. awarded contract to erect store and office building. (See "Stores.")

Tex., Milano.—First State Bank awarded contract to Evens & Lee, Taylor, Tex., to erect bank building; brick; cost, $3000.

Va., Richmond.—Mechanics and Merchants' Bank will erect bank building on Hull St., between 11th and 12th Sts.; one story; brick, stone and concrete; cost $20,946; plans by A. F. Huntt, Richmond; J. T. Nuckols, contractor. (Recently noted.)

W. Va., Keyser. — First National Bank awarded contract to Olin Gerlach, Frostburg, Md., to remodel bank building, and subcontract for concrete work to Mr. Moran, Keyser; will provide plate-glass windows, tile floors, bronze doors, marble fixtures, etc.

W. Va., Warwood.—Warwood Amusement Co. awarded contract to erect building to contain offices, stores, etc. (See "Miscellaneous Structures.")

CHURCHES

Ark., Little Rock. — Associate Reformed Presbyterian Church awarded contract to W. W. Brown, Little Rock, to erect edifice; two stories; brick; 45x168 feet; ordinary construction; tile roof; cost about $12,000; plans by C. L. Thompson, Little Rock. (Previously noted.)

Fla., Alachua.—Methodist Episcopal Church awarded contract to J. F. Townsend, Alachua, to erect proposed edifice; 12-inch walls; pressed brick; plastered walls; metal ceiling; flexifold partition; accordion doors; metal shingles; metal cornice; contract price $6874.

Ky., Middlesboro. — Presbyterian Church awarded contract to Miller Construction Co., Middlesboro, to erect proposed edifice; 50x100 feet; cost $15,000.

Mo., Fulton.—First Presbyterian Church awarded contract to J. B. Evans Construction Co., Mexico, Mo., to erect proposed Sunday-school building; two stories and basement; 50x65 feet; ordinary construction; steam heat; electric light'ng; slate roof; cost $15,000; plans by M. F. Bell, Fulton, Mo.

Mo., Fulton.—Second Christian Church will expend $7000 to erect edifice; two stories and basement; 40x60 feet; ordinary construction; hot-air heat; electric lighting; shingle roof; plans by M. F. Bell, Fulton; contract recently noted let to J. B. Evans Construction Co., Mexico, Mo.

Mo., St. Louis. — Evangelical Lutheran Marcus Church, Rev. William Hallerberg, pastor, awarded contract to Erdbruegger & Beumer, St. Louis, to erect edifice and parsonage; brick; cut stone trimmings; slate roof; two spires at either side of main front; auditorium to seat 600; cost $30,000; plans by Albert Meyer, St. Louis.

N. C., Charlotte. — Second Presbyterian Church, Rev. A. A. McGeachy, pastor, awarded contract to Tomlinson Decorating & Furnishing Co., Charlotte, for interior decorations of edifice; cost about $5000.

Va., Berkley, Station Norfolk.—St. Paul's Episcopal Church awarded contract to John W. Jones, Norfolk, to supervise construction of addition to edifice.

Va., Portsmouth. — South Street Baptist Church awarded contract at $11,537 to C. M. Majors, Portsmouth, to erect proposed Sunday-school addition; two stories; number of classrooms and auditorium; accordion partitions.

CITY AND COUNTY

Ala., Andalusia—Jail.—Covington County Board of Revenue awarded contract to P. M. Metcalf, Hartford, Ala., to erect county jail; contract for cell work awarded to Van Dorn Iron Works Co., Cleveland, O. (Previously noted.)

Ark., Bentonville—Home.—Benton county awarded contract to J. A. Grommer to erect annex to county home; 70x27 feet; ordinary construction; brick; shingle roof; cost $3000; cost of heating plant $900; plans by L. A. Pace. (Recently noted.)

Ky., Middlesboro—Library.—City awarded contract to Miller Construction Co., Middlesboro, to erect Carnegie library recently noted; 50x75 feet; cost $15,000. (See "Machinery Wanted.")

N. C., Asheville—Jail.—City awarded contract to A. M. Goodlake, Asheville, to remodel portion of jail containing cells, except installation of steel cages; will remove present partitions, install concrete floors, additional floor between present floor and ceiling, each floor seven feet high; install steel cages in each cell; partition from west door of courtroom to southwest entrance to hall; cost $6500 to $7000; plans by Smith & Carrier, Asheville. (Recently noted.)

N. C., Newland (not a postoffice).—Avery County Commissioners, Elk Park, N. C., awarded contract to R. C. Campbell to erect jail; 38x50 feet; fireproof construction; cost $7350. (Recently noted.)

Tex., Brownsville—Jail.—Cameron County Commissioners awarded contract to erect courthouse and jail. (See "Courthouses.")

Tex., Fort Stockton—Jail.—Pecos County Commissioners awarded contract to erect additions to courthouse and jail. (See "Courthouses.")

COURTHOUSES

Tex., Brownsville.—Cameron County Commissioners awarded contract, relinquished by Standard Construction Co., Dallas, Tex., to Gross Construction Co., Oklahoma City, Okla., to erect courthouse and jail; three stories; fireproof; cost $146,000; plans by Atlee B. Ayres, San Antonio, Tex. (Previously noted.)

Tex., Fort Stockton.—Pecos County Commissioners have plans by and awarded contract at $73,000 to Falls City Construction Co., Louisville, Ky., to erect additions to courthouse and jail. (Recently noted.)

DWELLINGS

Ala., Birmingham. — Bertram Jacobs will erect two-story frame residence on S. Thirteenth Ave.; cost $4000; awarded contract to Joy Construction Co., Birmingham.

Ala., Birmingham.—C. S. Blair will erect two-story brick veneer residence on Summitt Ave., Graymont; cost $3500; awarded contract to Joy Construction Co.

Ala., Birmingham. — Max J. Wroklen awarded contract to F. W. Marks to erect residence on Fairview Ave.; two stories; frame; cost $4000.

Ga., Atlanta.—John T. Glenn awarded con-

Fla., Miami.—Art Stone Construction Co., Miami, has contract to erect three cement-block residences at 12th and Avenue L; white faced stone; eight rooms and bath; cost $3000 to $4000 each.

Fla., Miami.—Fred A. Conrad awarded contract to erect two-story residence; eight rooms and bath; cost $4500.

tract to Gude & Co., Atlanta, to erect two-story frame dwelling at 39 Inman Circle; cost $6000.

Ga., Atlanta.—J. R. & C. E. Glenn awarded contract to J. L. Hiers, Atlanta, to erect two-story brick-veneer dwelling; cost $7000.

Ga., Atlanta.—S. H. Venable awarded contract to S. J. Warner, 40½ N. Forsythe St., Atlanta, to erect residence; 125-foot front; ordinary construction; vapor heat; electric lighting; slate roof; cost $40,000; plans by Edward E. Dougherty, Atlanta. (Recently noted.)

Ga., Savannah.—D. Detreville awarded contract to A. S. Bacon & Sons, Savannah, to erect residence; two stories; 47x35 feet; ordinary construction; grates; gas and electric lighting; tin roof; cost $3800; plans by E. N. Cartwright, Savannah. (Recently noted.)

La., New Orleans.—Phoenix Building and Homestead Association, 341 Carondelet St., has plans by and awarded contract to Louisiana Building & Contracting Co., 317 Magnolia Bldg., New Orleans, to erect two dwellings for Alfred Moran and J. B. Garvey; 62x31½ feet and 69x29½ feet; ordinary construction; gas and electric lighting; cost $2600 and $2900, respectively. (Recently noted.)

La., New Orleans.—Oscar Catoire, 5505 Coliseum St., awarded contract to A. P. Boh, 303 Carondelet St., New Orleans, to erect proposed dwelling; 30x60 feet; ordinary construction; hot-air heat; slate roof; hardwood floors; indirect lighting; cost $6000; plans by Gordon S. Levy, Hennen Bldg., New Orleans. (Recently noted under "Apartment-houses.")

Md., Baltimore.—Grantly Land Co. awarded contract to Henry Smith, Harford Rd., opposite Rosekemp Ave., Lauraville, Md., to erect two cottages; one on Walbrook Ave. near Grantly Ave., and one on 14th St. near Grantly Ave.; stone and cement; slate roofs; 26x30 feet; hot air heat; cost $8000; plans by C. A. Cummins, 3404 Carlisle Ave., Baltimore.

Md., Baltimore. — Mrs. I. Tagg awarded contract to William Tagg, 2515 Hollins St., Baltimore, to erect six three-story brick dwellings on Boyd St. near Catherine St.; 13x30 feet each; hot-air heat; cost $6000.

Md., Baltimore.—Andrew Reiter, Garrison and Penhurst Aves., has plans by W. R. Russell, Professional Bldg., Baltimore, for cottage on Garrison Ave. near Penhurst Ave.; two and a half stories; 28x35 feet; frame; cost $6000; contract awarded to Murray & Haynes, 1709 N. Eliamont St., Baltimore.

Md., Baltimore.—George C. Frederick, 2538 W. Baltimore St., awarded contract to J. Henry Smith, 1426 Light St., Baltimore, to erect cottage at Ten Hills; two and a half stories; 42x40 feet; frame; cost $7000; plans by Walter M. Gieske, 66 Gunther Bldg., Baltimore. (Recently noted.)

Md., Baltimore.—Thomas F. Mullan, 4011 York Rd., awarded contract to H. M. Foutz, 4007 York Rd., Baltimore, to erect dwelling on Gordon St. near Ellerslie Ave.; two and a half stories; porches on three sides; cost $3500; plans by A. L. Blatchley, Rose Hill, York Rd., Baltimore.

Md., Baltimore.—J. Hillen Jenkins, 1208 St. Paul St., awarded contract to Edward Brady & Sons, 1113 Cathedral St., Baltimore, to erect addition to residence; three stories and basement; brick; cost $4000.

Mo., Kansas City.—Fred O. Morgan of Smith Bros. Commission Co. awarded contract to erect $7000 residence at 74th St. and West Prospect Place.

Mo., St. Louis.—H. W. Strecker has plans by and awarded contract to Leo K. Milberger, 3426 California Ave., St. Louis, to erect bungalow; 28x38 feet; mill construction; cost $5000; cost of heating and lighting, $540. (Recently noted.)

Mo., St. Louis.—A. Meyer has plans by and awarded contract to A. Blair Riddington, Fullerton Bldg., St. Louis, to erect residence; 31x38 feet; brick; red tile roof; cost $10,000. (Recently noted.)

Mo., St. Louis. — Evangelical Lutheran Marcus Church awarded contract to erect church and parsonage. (See "Churches.")

N. C., Salisbury.—A. H. Price awarded contract to J. D. Brown, Salisbury, to erect residence; frame; cost $5000.

S. C., Laurens.—Ryland and Gibbon Trayham awarded contract to erect $7000 residence on West Main St.

Tenn., Memphis.—Polk & Boyle awarded contract to F. C. Storey, Memphis, to erect residences at 256 Avalon Ave. and 390 Angelus Pl.; cost, respectively, $3350 and $2750.

Tenn., Memphis.—A. G. Lavison awarded contract to A. Eberhart, Memphis, to erect residence at 1106 Southern Ave.; cost $4450.

Tenn., Memphis. — George W. Person awarded contract to Gilbert Real Estate & Investment Co., Memphis, to erect residence at 364 McLean Blvd.; cost $6600.

Tenn., Memphis.—C. L. Van Fussen awarded contract to M. E. Hill, Memphis, to erect residence at 1409 Peabody Ave.; cost $5650.

Tenn., Memphis.—H. B. Johnson awarded contract to J. A. Moore, Memphis, to erect residence at 1880 Cowden Ave.; cost $5000.

Tenn., Memphis.—W. H. Harris awarded contract to M. E. Downing, Memphis, to erect residence at 1351 Harbert Ave.; cost $3400.

Va., Norfolk.—Dr. J. R. Speight awarded contract to Jesse Johnson, Norfolk, to erect residence on Colonial Ave.; brick; cost $8500.

Va., Norfolk.—Mary Elizabeth Eetheridge awarded contract to Jesse Johnson, Norfolk, to erect residence on 30th St.; frame; cost $3500.

Va., Norfolk.—John Ross awarded contract to George Flemming, Norfolk, to erect two-story frame house; metal roof; cost $3100.

Va., Norfolk.—Mary C. McCuen awarded contract to John Kelbaugh, Norfolk, to erect residence on 19th St.; brick; cost $3129.

Va., Norfolk.—N. B. Morse awarded contract to R. B. Darden, Norfolk, to erect residence on Redgate Ave.; cost $5200.

Va., Orange.—A. T. Browning awarded contract to W. H. Wood, Orange, to erect residence; two stories; 36x36 feet; brick and shingles; steam heat; electric lights; cost, $4000.

Va., Richmond.—D. Moschetti awarded contract to Stretz & Seay, Richmond, to erect brick dwelling on Ashland Ave.; cost $7000. (Recently noted.)

Va., Richmond.—B. C. Lewis awarded contract to T. D. Newell, Richmond, to erect dwelling at 1826 Park Ave.; cost $8500.

GOVERNMENT AND STATE

Md., Sykesville—Hospital.—State awarded contract to J. L. Fowble, Timonium, Md., to erect physicians' residence to replace Betsy Patterson Mansion; two and a half stories; brick and terra-cotta; stone foundation; plans by Owens & Sisco, 1605 Continental Bldg., Baltimore, Md. (Previously noted.)

N. C., Reidsville—Postoffice.—Treasury Department awarded contract to Melton Construction Co., 11th and H Sts. N. W., Washington, D. C., to extend and remodel postoffice. (Recently noted.)

Okla., Pryor Creek—Cottages, etc.—Board of Affairs awarded contract at $68,550 to Manhattan Construction Co. to erect four cottages and mechanical building at State Home. (Recently noted.)

HOTELS

Mo., Linneus.—J. H. Collins awarded contract to Hoffman & Kern, Milan, Mo., to erect hotel to replace Commercial Hotel; cost $26,000.

MISCELLANEOUS

Ala., Albertville — Fair. — Albertville Fair Association awarded contract to erect grandstand, exhibition hall and stables; cost $3000.

Fla., Pensacola—Restaurant.—B & B Cafe, 6 S. Palafox St., awarded contract to C. H. Turner Construction Co., Pensacola, for improvements to restaurant, including new kitchen, large windows for natural illumination, etc.; cost, $7000.

Ga., Waycross—Hospital.—Waycross Hospital for Colored People awarded contract to erect hospital; brick and tile.

Ky., Lexington — Sanitarium. — George P. Sprague awarded contract to F. W. Hunt, Lexington, to erect sanitarium for mental and nervous diseases; 116x82 feet; reinforced concrete; steam heat; electric wiring; asbestos roofing; cost $20,000; plans by Val. P. Collins, Louisville, Ky. (Previously noted.)

Md., Baltimore—Auditorium.—B. F. Bennett Building Co., 123 S. Howard St., Baltimore, has contract to erect auditorium building at Maryland Ave. and Oliver St., adoining Lyric Theater, for World in Baltimore movement; 130x150 feet; two stories; corrugated iron; heavy mill construction; cost $15,000; plans by Glidden & Friz, Glenn Bldg., 16 St. Paul St., Baltimore. (Recently noted.)

N. C., Fayetteville—Hospital.—Fayetteville Infirmary Co. (recently noted interested) awarded contract to Wilkins Construction Co., Wilson, N. C., to erect hospital; 58x88 feet; three stories; mill construction; hot-water heat; electric lighting; hand-power elevator; metal tile roof; cost $15,000; plans by Benton & Moore, Wilson, N. C. (See "Machinery Wanted.")

Tenn., Columbia—Hospital.—King's Daughters awarded contract to Alford Bros., Columbia, to erect Maury Hospital; red and white brick and stone; two stories and basement; 16 rooms. (Previously noted.)

Tex., Houston—Clubhouse.—Houston Turnverein awarded contract to W. H. Young, Houston, to erect clubhouse; three stories and basement; 120x90 feet; Bedford stone or granite; roof garden; cost $80,000; plans by Sanguinett, Staats & Barns, First National Bank Bldg., Houston. (Previously noted.)

Va., Hampton—Hospital.—Dixie Hospital, Jacob Heffelinger, president, awarded contract to R. H. Richardson & Son, Hampton, to erect proposed hospital.

Va., Norfolk—Studio, etc.—Homer Moore awarded contract to erect studio and apartment-house. (See "Apartment-houses.")

W. Va., Warwood—Amusement.—Warwood Amusement Co. awarded contract to Andrew Hart, Warwood, to erect building; three stories; auditorium to seat 500; lower floor for store; second floor for offices; bowling alley, etc., in basement; cost $10,000.

RAILWAY STATIONS, SHEDS, ETC.

Fla., Bartow.—Seaboard Air Line Railway, W. L. Seddon, chief engineer, Portsmouth,

Va., awarded contract to erect depot; 40x100 feet.

Md., Cumberland.—Western Maryland Railroad, H. R. Pratt, chief engineer, Hillen Station, Baltimore, Md., awarded contract to Consolidated Engineering Co., Bromo-Seltzer Tower Bldg., Baltimore, Md., to erect station; brick and concrete; 40x140 feet; two stories; cost $100,000; plans by C. M. Anderson 324 N. Charles St., Baltimore. (Previously noted.)

Okla., Holdenville.—St. Louis & San Francisco Railroad, M. C. Byers, chief engineer, Springfield, Mo., and Chicago, Rock Island & Pacific Railway, J. B. Berry, chief engineer, Chicago, awarded contract to J. D. Fitzgibbon, Chemical Bldg., St. Louis, Mo., to erect union station; cost $15,000. (Recently reported.)

Okla., Miami.—Missouri, Oklahoma & Gulf Railway, J. J. Harrison, chief engineer, Muskogee, Okla., awarded contract to erect combinde passenger and freight station; 124x26 feet; brick; faced with paving brick; cost, $12,000. (Recently noted.)

SCHOOLS

Fla., Port Tampa City.—Twenty-second District School Trustees awarded contract at $6403 to Logan Bros., Tampa, Fla., to erect school; two stories; frame; four classrooms on first floor, each 27x32½ feet, and to seat 40 pupils; each room with cloak and hat-room, 5x27 feet; plastered walls with blackboards on two sides; auditorium, 60x75 feet on second floor; 5000-gallon tank; plans by Paul Gasser, Tampa, Fla. (Recently noted.)

Md., Dorchester Heights (not a postoffice), Baltimore County School Board, Towson, Md., awarded contract to Henry Nagle, Catonsville, Md., to erect school for children of Lakeland, Dorchester Heights, English Consul and Baltimore Highlands; two rooms; brick and stained shingles; 23.2x60 feet; steam heat; cost $3800; construction under supervision of Thomas L. Jones & Sons, 410 W. Saratoga St., Baltimore, Md.

Md., Chestertown.—Board of Visitors and Governors of Washington College awarded contract at about $30,000 to John Waters, 23 E. Center St., Baltimore, Md., to erect gymnasium; T shape; 81x102 feet; brick; terra-cotta and concrete trimmings; shower baths, lockers, etc.; plans by Henry Hopkins, Annapolis, Md.

Miss., University.—Executive committee of trustees of University of Mississippi awarded contract to McClanahan & Terry, Columbus, Miss., to erect Peabody educational building, and to Luderbach Plumbing Co., Jackson, Miss., for plumbing, heating and lighting; total cost $40,000; plans by Bem Price, Empire Bldg., Birmingham, Ala. (Previously noted.)

Mo., Lebanon.—City awarded contract to Harry L. Pierce of Kansas City, Mo., to erect high school. (Previously noted as having sold $20,000 bond issue.)

S. C., Lexington.—Trustees of Summerland College for Girls awarded contract to J. J. Seastrunk, Lexington, to erect conservatory of music building; brick; four rooms.

Tenn., Beech Bluff.—Madison County Board of Education, Jackson, Tenn., awarded contract to erect high school. (See Tenn., Jackson.)

Tenn., Humboldt.—Board of Education awarded contract to erect addition to high school; 24x40 feet; completion by September 25.

Tenn., Jackson.—Madison County Board of Education, R. E. L. Bynum, superintendent, awarded contracts to erect high schools at Mercer, Huntersville, Brown's Church, Medon, Beech Bluff, and one on Christmanville Rd., to cost, respectively, $8000, $7000, $4500, $4000, $4000 and $4500; also to erect $3700 agricultural school for negroes in Fifth District, $1500 school at East Union, $2000 primary school in Seventeenth District, $2000 primary school in Sixteenth District; will expend $2750 to remodel high school at Denmark and $2000 to erect additional story to Pope High School. (Previously noted to issue $125,000 of bonds for high-school improvements.)

Tenn., Jersey (not a postoffice).—Hamilton County Board of Education, Chattanooga, Tenn., awarded contract at $4650 to J. E. Rodric, Chattanooga, Tenn., to erect school; three rooms; "T" shaped corridor; brick; two entrances; plans by R. H. Hunt, James Bldg., Chattanooga, Tenn. (Recently noted.)

Tenn., Medon.—Madison County Board of Education, Jackson, Tenn., awarded contract to erect high school. (See Tenn., Jackson.)

Tenn., Mercer.—Madison County Board of Education, Jackson, Tenn., awarded contract to erect high school. (See Tenn., Jackson.)

Tenn., Nashville.—Trustees of George Peabody College for Teachers awarded contract to Foster-Creighton-Gould Co., Berry Block, Nashville, to erect manual training building and power-house; L shape; 200x80 feet; cost $150,000; plans by Ludlow & Peabody, 12 W. 31st St., New York. (Previously noted.)

Tex., Alma.—School Board awarded contract to erect school; brick; cost $10,000.

Tex., El Campo.—Town awarded contract to erect school; four rooms. Address Town Clerk.

Tex., Cuero.—School Board awarded contract at $26,600 to Charles Feuss & Son, Cuero, to erect high school; at $2245.65 to H. Runge & Co., Cuero, for heating plant, and at $1395 to Bailey Mills, Victoria, Tex., for plumbing; plans by C. H. Page & Bro., Austin and Houston, Tex., call for three-story structure; gray brick; 122x90 feet; steel window frames; auditorium 61x48 feet, to seat, with galleries, 850 people. (Recently noted.)

Tex., Houston Heights.—School Board awarded contract at $25,910.94 to D. A. Crawford, Houston, Tex., to erect Cooley school, and at $4990 to F. C. Van Lieu, Houston, Tex., for plumbing; also approved plans for improvements to high school. (Recently noted.)

Tex., Milano.—School Trustees awarded contract to Evens & Lee, Taylor, Tex., to erect school; brick; cost, $4000.

Tex., Rising Star.—Board of Education awarded contract to erect school; plans by Glenn Bros., Wichita Falls, Tex., call for three-story structure; 14 rooms and auditorium; brick; steam heat; cost $20,000. (Recently noted.)

STORES

Ala., Birmingham.—R. H. Carter awarded contract to Joy Construction Co., Birmingham, to erect two-story frame building at 15th and Euclid Aves.; cost $6500.

Ala., Mobile.—L. & J. Hammel will expend $15,000 to remodel department store and erect 30x100-foot addition; three stories; fireproof construction; electric lighting; elevator; composition roof; plans by George B. Rogers, Mobile; contract recently noted awarded to E. J. Raub & Co., Mobile. (See "Machinery Wanted.")

Ga., Atlanta.—Byck Bros. & Co. awarded contract to Gude & Co., Atlanta, to remodel building at 27 Whitehall St.

Ga., Lagrange.—S. H. Kress & Co., 39 Broadway, New York, awarded contract to Pike Bros. Lumber Co., Lagrange, to erect store building; two stories and basement; 50x100 feet; plate-glass and copper front. (Previously noted.)

La., Abbeville.—Joe Russo awarded contract to R. J. Montagne, Abbeville, to erect store on State St.; brick.

Md., Baltimore.—Maurice Gregg, Equitable Bldg., has plans by and awarded contract to S. Spreat, 203 N. Pine St., for addition to building at 719 N. Charles St.; brick; 25x22 feet; cost $3000.

Md., Baltimore.—Martin Lauer, 451-57 N. Gay St., awarded contract to Wm. H. Porter & Son, 505-507 Forrest St., Baltimore, for improvements to store building, including installation of plate-glass window 120 feet long, erection of addition in rear, etc.; cost $5000; plans by Wm. J. Porter, 505-507 Forrest St., Baltimore.

N. C., Greensboro.—W. F. Clegg awarded contract to erect three storerooms; one story; front of plate glass and pressed brick.

N. C., High Point.—I. Isaacson and J. Goldstein, Greensboro, N. C., awarded contract to W. I. Montgomery & Bro., High Point, to erect store building; 62x96 feet; ordinary construction; heating plant undecided; tin roof; cost $12,000 to $15,000.

N. C., Wadesboro.—Parsons Drug Co. awarded contract to F. C. Ingram & Co., Wadesboro, to erect three-story store and office building; pressed brick and plate-glass front.

N. C., Wilmington.—G. W. Huggins will expend $5000 to remodel and erect addition to store; 16x50 feet; contract recently noted awarded to J. Schad, Wilmington.

Tenn., Memphis.—Dave Derman awarded contract to W. R. Gilbert, Memphis, to erect store and apartment-house at 258 Vance Ave.; cost $9600.

Tenn., Memphis.—J. Goldsmith & Sons awarded contract to D. Emmons & Co., Memphis, to repair building at 3d St. and Monroe Ave.; cost $20,000.

Tex., Athens.—J. T. LaRue awarded contract to C. H. Hawn, Athens, to erect five business buildings to replace burned structures; brick construction.

Tex., Bay City.—Henry Rugeley and T. J. Poole awarded contract to Roy Schultz, Bay City, to erect two business buildings; brick construction. (Recently noted.)

Tex., San Antonio.—Alexander Joske will expend $45,000 to erect addition to store building; 63x120 feet; ordinary construction; gravity steam heat; elevator; Barrett specification roofing; plans by Leo M. J. Dielmann, San Antonio; contract recently noted awarded to J. C. Dielmann of San Antonio.

Tex., Yoakum.—J. B. Harris awarded contract to Bailey Mills Co., Victoria, Tex., to erect proposed store; 45x92 feet; ordinary construction; gravel composition roof; concrete foundations; St. Louis gray faced and colored enameled brick; steel girders; marble bars for show windows; plate-glass front; sanitary floors; cost $9300; plans by J. Henry Yentzen, Yoakum.

Va., Petersburg.—Watson Realty Co. awarded contract to G. B. Keeler & Son, Petersburg, to erect building to contain six stores at Washington and Union Sts.; brick; one story; 67x125 feet; plans by S. Daly Craig, Petersburg.

Va., Richmond.—W. T. Smith awarded contract to Delaney & Gann, Richmond, to erect store at 400 W. Broad St.; cost $12,000. (Recently noted.)

W. Va., Warwood.—Warwood Amusement Co. awarded contract to erect building to contain stores, offices, etc. (See "Miscellaneous Structures.")

THEATERS

Tex., Houston.—Jesse Jones awarded contract to Trinity Engineering & Construction Co., Houston, to erect theater on Main St.; fireproof; three stories; 50x140 feet; cost $40,000; plans by Mauran, Russell & Crowell, St. Louis. (Recently noted.)

Tex., Lockhart.—A. D. Baker Amusement Co. awarded contract to L. H. Neebe, Lockhart, to erect airdome and winter moving-picture theater.

WAREHOUSES

Ky., Augusta.—Planters' Loose Leaf Tobacco Warehouse Co. incorporated with $20,000 capital stock by J. T. Morrow, C. E. Satterwhite, both of Henderson, N. C., and L. J. Rux, Petersburg, N. C.; awarded contract to Champion Bridge Co., Wilmington, O., for iron work on warehouse; over 50,000 square feet floor space.

Ky., Frankfort.—Burley Tobacco Society, Lexington, Ky., will expend $15,000 to erect loose-leaf tobacco warehouse; 140x220 feet; Carey rubber roofing; plans by Allyn Engineering Co., Cincinnati, O.; contract recently noted awarded to Williamson & Sons, Lexington, Ky.

La., Lake Charles.—Home Realty Co. awarded contract to E. M. Train to erect warehouse; two stories; 59x58 feet; fireproof construction; galvanized iron roof; cost $5000.

Okla., Tulsa.—Nicholas Transfer Co. awarded contract to erect storage building; brick and cement; two stories; 50x140 feet; private railway switch.

S. C., Charleston.—Southeastern Warehouse Co. awarded contract to Simons-Mayrant Company, Charleston, to erect warehouse at Concord and Hasell Sts.; standard mill construction; two stories; brick and concrete; storage capacity, 500 carloads; four fireproof compartments; foundation to permit erection of two additional stories; 140x150 feet; electric elevator; cost $40,000; plans by D. B. Hyer, Charleston. (Recently noted.)

S. C., Columbia.—Southern Cotton Oil Co., 24 Broad St., New York, awarded contract to Schaffer Manufacturing Co., Birmingham, Ala., to rebuild cottonseed storage warehouse; steel construction; capacity, 8500 tons cottonseed. (Previously reported burned.)

RAILROAD CONSTRUCTION

RAILWAYS

Ala., Piedmont.—John H. Shinn of Philadelphia, Geo. D. Harris and H. P. Harris are reported interested in the plan to build a railroad from Piedmont to Pyroton, about 50 miles. M. D. Wellborn is said to be concerned.

Ala., Toinette.—Reported that the Toinette & Western Railroad Co. will be organized to take over a local lumber line and extend it. S. A. Wilson, president of the Toinette Land Co., may give information. A. H. Andrews is secretary and treasurer.

Ark., Helena.—The Missouri & North Arkansas Railroad proposes to erect a $50,000 terminal in Helena. Jesse MacDonald, Geo. L. Sands and W. S. Holt are receivers, Security Building, St. Louis, Mo.

Ark., Sheridan.—E. S. McCarty says he has purchased the Pine Bluff, Sheridan & Southern Railway. He will build 14 miles of track with good relay rails, 56 to 60 pound. He is president.

Fla., Pensacola.—The Gulf, Florida & Alabama Railway Co. has about decided to award contracts for 20 miles more of extension on its line from Pensacola northward into Alabama. G. A. Berry is vice-president, general manager and chief engineer at Pensacola, Fla.

Fla., St. Petersburg.—C. H. Lutz of Odessa, Fla., general manager of the Tampa & Gulf Coast Railroad, and others, is reported about to begin construction of a line on the Pinellas peninsula to connect with St. Petersburg, Largo, Clearwater and other towns with the Seaboard Air Line six miles from Tampa.

Ga., Atlanta.—The Atlanta & Macon Railway Co. has practically completed plans and surveys to begin construction in the near future of its proposed high-speed, third rail electric railway from Atlanta to Macon, Ga., 88½ miles, via Jonesboro, Griffin and Forsythe. C. G. Young, Bankers' Trust Bldg., New York, is consulting engineer representing financial interests.

Ga., Darien.—An official of the Georgia Coast & Piedmont Railroad is quoted saying that the Glynn Construction Co. is building its extension from Darien to Brunswick, 18 miles, which is expected to be inoperation within 10 months. J. H. Granbery is chief engineer.

Ga., Hinesville.—Capt. J. B. Way is reported pushing construction of the Flemington, Hinesville & Western Railroad, four out of the five miles of line being graded and ties laid.

Ga., Macon.—The Macon, Dublin & Savannah Railway Co. has applied to the State Railroad Commission for authority to issue $40,000 of bonds. Some construction may be done. J. T. Wright is vice-president at Macon, Ga.

Ky., Frankfort.—T. S. McGrath, 38 S. Dearborn St., Chicago, and others have organized the Kentucky Coal & Timber Development Co., which in the course of its work contemplates building about 100 miles of standard-gauge railroad, besides lumber railroad. Survey is just completed by the Appleton & Sewell Company of New York, under the direction of James W. Sewall, forester and surveyor, Oldtown, Me. Others interested in the company include C. D. Warren of Toronto, Canada, and D. H. Sill of New York.

Ky., Jackson.—The Lexington & Eastern Railway (L. & N. system) has completed track on the North Fork extension from Jackson to a point 10 miles east of Hazard, Ky., a total of about 55 miles, and recently began train service to Hazard, 45 miles from Jackson. Construction is progressing on the remainder of the extension to the coal fields in Letcher county, about 40 miles more. W. E. Smith is superintendent of construction at Louisville, Ky.

Ky., Paducah.—An official letter denies the report that the Chicago, Burlington & Quincy Railroad is surveying south of the Ohio River from Metropolis, Ill.

Ky., Stearns.—The Stearns Coal & Lumber Co. (R. S. Stearns, vice-president) says that the proposed railway from Stearns to Whitley will not be built in the near future.

La., Baton Rouge.—The Southern Pacific Company, according to a report quoting officials in New York, contemplates building a bridge over the Mississippi from Baton Rouge to Port Allen. E. B. Cushing is engineer of construction at Houston, Tex.

La., Belair.—The Louisiana Southern Railroad has completed to Pointe-a-la-Hache 16 miles of its extension from Belair to Bohemia, La.

La., New Orleans.—An official letter says that the Texas & Pacific Railway expects to establish quite extensive terminals at New Orleans, but the company is not now prepared to announce particulars. C. H. Chamberlain is chief engineer at Dallas, Tex.

Md., Cumberland.—The Western Maryland Railway has bought land at Cumberland for station and freight yards. H. R. Pratt is chief engineer at Baltimore, Md.

Miss., McComb.—The Liberty-White Railroad has built an extension from Bridges to Harveytown, Miss., six miles. Its extension of six miles from Harveytown to Tylertown is to be done by September 15.

Miss., Richton.—The Richton Lumber Co.

is reported to have completed a logging railroad 12 miles long into Green county, and it may be extended.

Mo., Shelbyville.—Reported that the Shelby County Railroad will build an extension. C. J. C. Houck is general manager at Shelbyville, Mo.

Mo., St. Louis.—St. Louis & Western Railroad Traction Co. is reported incorporated to build a line 25 miles long from Forest Park west through St. Louis county to the Missouri River, opposite Weldon Springs. Capital stock $300,000. J. D. Houseman of St. Louis is the principal stockholder, the others being Powell Johnson, Richard K. Papin, John Brennan, Jr., Matthew T. Chesnut, William R. Harrison and Charles F. Redman. The company, it is said, has acquired the right of way, etc., of the St. Louis, Webster & Valley Park Railway, which is partly graded.

Mo., Weston.—W. H. Smith & Co. of Weston are reported to have a contract on the Chicago, Burlington & Quincy Railway at Weston and covering 10,000 cubic yards.

N. C., Canton.—The Pigeon River Railroad is reported to have completed 11 miles of its line from Canton toward Sunburst, N. C.

N. C., Charlotte.—The Seaboard Air Line and the Southern Railway propose to elevate their tracks at Trade St. and build an underpass for street traffic. W. L. Seddon is chief engineer of the Seaboard at Portsmouth, Va., and B. Herman is chief engineer maintenance of way for the Southern at Washington, D. C.

N. C., Greensboro.—Charter has been filed for the Greensboro Northern & Atlantic Rail-Road Co., succeeding the Greensboro, Roxboro & Norfolk Railroad Co. Line will be built from Greensboro to Roxboro and the Seaboard Air Line near Henderson, N. C. T. O. Troy is president; incorporators, C. D. Benbow, A. B. Kimball, Garland Daniel, J. W. Patterson, Lindsey Hopkins, S. A. Caviness, C. C. McLean, D. R. Huffines, R. C. Hood and V. C. McAdoo. Walter Washabaugh of Charlottesville, Va., who is chief engineer, says that preliminary survey is being made from Greensboro via Haw River to a connection with the Norfolk Southern Railroad, 76 miles.

N. C., Denton.—The engineering department of W. N. Coler & Co., John Nichol, manager, has awarded contract to C. M. Lane & Co. of Atlanta for the construction of 7 miles of the Carolina & Yadkin River Railroad from Denton to High Rock. Estimated value of contract, $100,000. Construction to begin immediately and be completed by January. W. N. Coler of New York is president and T. J. Jerome of Salisbury, N. C., vice-president of the road.

N. C., Manchester.—Reported that the Atlantic Coast Line will build a branch from Manchester to Southern Pines, N. C., about 25 miles. E. B. Pleasants is chief engineer at Wilmington, N. C.

Okla., Ardmore.—Santa Fe is reported to have engineers surveying for a line from Ardmore to Oil City and Wheeler, Okla., about 20 miles; C. F. W. Felt, Topeka, Kan., is chief engineer.

Okla., Tulsa.—A deal has been closed, it is reported, for the extension of the Tulsa & Sand Springs Interurban Railway to Collinsville, about 20 miles. Charles Page, president, is quoted saying that it may also be built nine miles farther to Oologah.

S. C., Anderson.—A wooden trestle burned recently on the Blue Ridge Railroad, near Anderson, will, it is reported, be replaced by a steel bridge. J. R. Anderson is superintendent at Anderson, S. C.

S. C., Charleston.—The Atlantic Coast Line, it is rumored, proposes to double-track its entire line from Richmond, Va., to Jacksonville, Fla., about 575 miles. Some double-tracking is already done and some is under construction. E. B. Pleasants is chief engineer at Wilmington, N. C.

S. C., Greenville.—W. S. Lee, vice-president Charlotte & Northern Lines, Charlotte, N. C., has just let contracts for remaining 21 miles of extension of 32 miles between Greenville and Spartanburg, S. C. The Parker Brooks Construction Co. of Macon, Ga., gets the first 17 miles out of Greenville, and Willard Boggs & Co. of Spartanburg, S. C., get the other 4 miles; approximate cost, $300,000. Entire extension is now under contract and must be completed by August 15 of next year. (See Manufacturers Record, July 25.)

S. C., Greenville.—W. H. Patterson, president of the Greenville & Knoxville Railway, which recently filed a mortgage for $400,000 to secure bonds, is quoted saying that most of the survey for the extension from Riverview toward Knoxville is completed, and the rest will be finished within a week or two. J. R. Cothran, at Greenville, S. C., is chief engineer.

Tenn., Kingston.—Reported that application will be made to charter the Athens & Tennessee Railway Co. at Kingston for a line from Athens to Harriman, Tenn., about 26 miles. The Board of Trade at Kingston may be able to give information.

Tenn., Memphis.—The court has ordered sale of the Lakeview Traction Co. and the Clarksville, Collierville & Covington Interurban Co., and it is expected that extensions will be made. J. H. Sullivan of Memphis is receiver for both.

Tenn., Memphis.—President C. H. Markham of the Illinois Central Railroad is quoted saying that as soon as an agreement is reached with the city as to placing the station on the site, contracts for the new terminal can begin to be let within a month, perhaps in August. A. S. Baldwin is chief engineer at Chicago, Ill.

Tex., Andrews.—A letter from the Andrews Commercial Club says that the Texas, Gulf & Northern Railway Co. proposes to build 546 miles of line from Tucumcari, N. M., to San Antonio, Tex., via Andrews, Midland and Kerrville, Tex. Headquarters are at Amarillo, Tex. J. A. Underwood is president; W. N. Sadler, vice-president; Mike C. Le Master, general manager and secretary, and R. E. Davis, chief engineer. Date of opening bids for construction not stated.

Tex., Aransas Pass.—J. S. Peter, first vice-president and general manager, says that the San Antonio & Aransas Pass Railway has bought a small strip of land at Aransas Pass to build a couple of additional side-tracks, but the plans do not contemplate any considerable amount of work at present. Headquarters at San Antonio, Tex.

Tex., Beaumont.—The Beaumont Light & Power Co. has been granted an extension of 25 years on its lighting franchise, provided that Stone & Webster of Boston, who now control the property, begin construction within nine months on the interurban line between Beaumont and Port Arthur, about 20 miles, and have it completed by the end of 1914. Surveys have been made. Mark Lowd, Houston, Tex., may give information.

Tex., Brownwood.—The Gulf, Colorado & Santa Fe Railway is planning construction of division terminals about eight miles east of Brownwood, according to a report quoting Assistant General Manager J. H. Keefe of Galveston, Tex. Estimated cost, about $500,000. Plans not yet in shape for announcement. F. Merritt, Galveston, is chief engineer.

Tex., Graham.—Concerning a recent report that the Rock Island system would make general improvements on the Graham branch, an official says that the work is being done by company forces and is in the nature of maintenance. H. M. Stone, Fort Worth, Tex., is chief engineer.

Tex., Lubbock.—Walter H. Dennison, contractor, says a report, has begun construction of the Santa Fe Line from Lubbock to Texico, 98 miles.

Tex., Orange.—Tommie & Sons, lumbermen at Gist, Tex., 18 miles north, are reported building a three-mile logging railroad.

Tex., San Antonio.—The Missouri, Kansas & Texas Railway is making surveys and plans for the construction of yard tracks and other terminal facilities. Plans for the belt line have also been completed. A. M. Acheson, Dallas, Tex., is chief engineer.

Tex., Sugarland.—The Sugarland Railroad, says a report, has completed an extension to Cabell, five miles.

Tex., Saragosa.—L. W. Anderson, general manager and chief engineer Pecos Valley & Southern Railway, Pecos, Tex., says that preliminary surveys have been made for the proposed extension from Saragosa to Fort Stockton, 50 miles. W. L. Carlisle of Dallas, Tex., is president. Route lies through rolling country.

Va., Harrisonburg.—The Baltimore & Ohio Railroad, according to a local report, will relay the Valley Branch with 90-pound rails. F. L. Stuart is chief engineer at Baltimore, Md.

Va., Hurricane.—The Dumps Creek branch of the Clinchfield Railway has been extended from Hurricane to Wilder, four miles.

Va., Yorktown.—Reported that L. W. Burlee of Gloucester county, Virginia, and others are working on a plan to secure the construction of the projected Norfolk, Yorktown & Washington Railway to connect with the Richmond, Fredericksburg & Potomac Railway at or near Fredericksburg, Va.

W. Va., Bemis.—The Greenbrier, Cheat & Elk Railroad is reported locating route for an extension from Spruce to Bemis. Date of awarding contracts not set. John J. Luke is president at 200 Fifth Ave., New York city; A. Alexis Raphel is locating engineer at Wildell, W. Va.

STREET RAILWAYS

Ala., Birmingham.—The Birmingham Railway, Light & Power Co. has applied for a franchise to build an extension from Brighton to Woodward, Ala., about one mile.

Ark., Little Rock.—The Little Rock Railway & Electric Co. has accepted the franchise to build the proposed South End loop. W. M. Kavanaugh is president.

Mo., Sedalia.—A new light and traction company has been organized; capital $1,500,000. C. E. Murray of Joplin, Mo., is the principal stockholder, others being R. A. McGregor and J. E. Harsh.

N. C., Hendersonville.—W. A. Smith, president of the Laurel Park Street Railway Co., is quoted saying that it will begin construction of an electric trolley railroad immediately after the end of summer. Estimated cost $30,000.

N. C., Wadesboro.—Reported that a company has been organized to build an electric line from the railroad station to the town and the cotton mill. The Board of Trade may give information.

Tenn., Chattanooga.—The Chattanooga Railway & Light Co. proposes to build double-track lines from the Western & Atlantic Railroad crossing to the Citico Switch, about 1½ miles. W. E. Boileau is general manager.

Tenn., Nashville.—The Nashville Railway & Light Co. is preparing to build an extension of the Fatherland Line to Shelby Park. A fill of 25,000 cubic yards of earth will be reuired. Percy Warner is president and general manager.

Tenn., Nashville.—The Nashville Railway & Light Co., says a report, proposes to build an extension to Hyde's Ferry Bridge.

W. Va., Wheeling.—Press report that the Wheeling Traction Co. would make extensions to interurban lines is denied. G. O. Nagle is general manager.

MACHINERY, PROPOSALS AND SUPPLIES WANTED

Manufacturers and others in need of machinery or supplies of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery or supplies needed we will make their wants known free of cost, and in this way secure the attention of manufacturers and dealers throughout the country. The Manufacturers Record has received during the week the following particulars as to machinery and supplies wanted.

Aluminum Tubing, etc.—J. H. Price, 1092 W. 9th St., Fort Worth, Tex., wants addresses of manufacturers of or dealers in aluminum tubing or piling.

Baler.—Atlantic Salt Hay Co., 1011 Chestnut St., Room 538, Philadelphia, Pa., wants information, etc., on hay baler.

Blowers.—Proposals received at Bureau of Supplies and Accounts, Navy Department, Washington, D. C., until 10 A. M. August 20, and publicly opened immediately thereafter, to furnish at Navy-yard, Charleston, S. C., a quantity of steam turbine-driven blowers. Applications for proposals should refer to schedule 4726. Blank proposals furnished upon application to navy pay office, Charleston, S. C., or to bureau. T. J. Cowie, Paymaster-General, U. S. N.

Boiler.—Henderson Brick & Supply Co., Henderson, N. C., wants prices on 50 to 65-horse-power boiler.

Boiler.—Newport Contracting & Engineering Co., Newport News, Va., wants 66 inches by 16-foot 125 pounds overhanging front steel boiler; structural details to meet approval Hartford inspection.

Boiler.—See "Creamery Machinery, etc."

Boilers.—See "Engines and Boilers."

Bridge Construction.—J. D. Laughlin, clerk, Vicksburg, Miss., receives bids until noon August 5 to construct two steel trestles near Hankinson's Ferry Bridge, as per plans and specifications on file with clerk; certified check $500.

Bridge Construction.—Bids received at office of Howard M. Jones, engineer, Room 407 Cole Bldg., until 1 P. M. August 10 for building highway bridge over Mill Creek, near Antioch, Tenn.; 75-foot steel span, with 110 feet of concrete trestle approach; certified check $200.

Bridge Construction.—Bids received 12 M. August 5 by County Commissioners of Alachua and Bradford counties for building steel highway bridge over Santa Fe River at Worthington Springs, according to plans and specifications on file in clerk's office; certified check $250; address bids to chairman, Alachua county, Gainesville, Fla.; C. L. Peck, chairman Bradford County Commissioners, Starke, Fla.

Bridge Construction.—Bids received until noon August 10, Culpeper, Va., for constructing three reinforced concrete bridges, 37 feet 10 inches, 54 feet ½ inch and 77 feet 7½ inches, across Indian Run, Cedar Run and Devil's Run, respectively; certified check for $250 for each bid, payable to P. St. J. Wilson, Richmond, Va., with whom plans are filed; plans also on file with Clerk of Circuit Court at Culpeper.

Bridge Construction.—W. E. Looper, County Clerk, Muskogee, Okla., receives bids until 10 A. M. August 26 to construct 12 bridges; certified check 20 per cent. of bid.

Bridge Construction.—Pittsylvania County Supervisors, Chatham, Va., receive bids until September 2 to construct bridge across Elkhorn Creek, on road to Riceville, across Cane Creek on road from Danville to Milton, N. C., and double-track trestle at Fall Creek bridge on Bradley Rd. near Danville; bids received on both iron and wood structures. For further information address S. W. Adkerson, Java, Va.; J. H. Warren, Witt, Va., or J. E. Giles, Danville, committee.

Building Materials.—Moore & Payne, Bonham, Tex., want prices on mill work, reinforcing material, marble, cut stone, granite, terrazzo, structural and ornamental iron and steel for United States postoffice at Bonham.

Building Materials.—Moses McKissack & Co., care of Texas College, Tyler, Tex., want addresses of manufacturers of building materials and supplies.

Building Materials.—Miller Construction Co., Middlesboro, Ky., wants prices on building materials.

Building Materials.—Bluestein Bros., 494 King St., Charleston, S. C., want prices on galvanized-iron cornice and copper or brass and plate glass for three-story store building.

Building Materials.—W. H. Batson, Moundsville, W. Va., wants prices on stone, terra-cotta, structural steel, lumber and mill work.

Building Materials.—E. J. Raub & Co., 215 N. Royal St., Mobile, Ala., want prices on ornamental plastering, wire skylight guards, metal windows, fireproof hollow building tile and cast-iron rain leader pipe.

Building Materials, etc.—Morris & Morris, 525 Atlanta National Bank Bldg., Atlanta, Ga., want prices on wrought-iron angles, cast-iron lintels, rods and caps, electric wiring, steel cages, etc., for city hall building at Carrollton, Ga.

Building Materials.—R. C. Gardner, Bayside Park, Miami, Fla., may purchase doors, windows, roofing, etc., for $3500 dwelling.

Building Materials.—Henderson Brick & Supply Co., Henderson, N. C., wants to correspond with manufacturers of and dealers in lime, cement, roofing, doors, mantels, flooring, ceiling, shingles, laths, paints, oils and other building supplies.

Bulkhead Construction.—Arthur C. Freeman, Jr., consulting engineer, Norfolk, Va., receives bids until noon August 3 to construct 300 feet wood bulkhead and place 18,000 cubic yards filling at Tanners Creek; plans and specifications on application.

Canal Construction.—Department of Interior, United States Reclamation Service, Washington, D. C. Proposals received at office of United States Reclamation Service, Savage, Mont., until 2 P. M. August 9 for earthwork and structures on extension of main canal and lateral systems, Lower Yellowstone Project; work involves approximately 145,000 cubic yards of excavation, 200 cubic yards of reinforced concrete, and placing structures of 35,000 feet board measure lumber. For particulars address United States Reclamation Service, Washington, D. C.; Helena, Mont., or Savage, Mont.; A. P. Davis, chief engineer.

Canning Equipment.—C. W. Self, McCurtain, Okla., wants prices on canning equipment.

Cars.—Willard Boggs & Co., Spartanburg, S. C., want prices on 24 four-yard 36-inch gauge K. & T. cars.

Coal.—Henderson Brick & Supply Co., Henderson, N. C., wants to correspond with dealers in coal.

Creamery Machinery, etc.—Green Hills Creamery Co., D. C. Preston, president, Seymour, Mo., opens bids August 20 for machinery and supplies for creamery; also refrigerating machinery, boiler and engine.

Crusher.—B. G. Houser, Fabius, Ala., wants prices on and description of small stone crusher or grinder for converting soft sandstone into sand for building purposes.

Culvert Construction.—See "Road Construction, etc."

Cutlery.—See "Manufactured Products."

Cutting Machinery.—J. S. Wilson, Bailey, N. C., wants addresses of manufacturers of vegetable slicers.

Distilling Machinery.—L. A. Fitzpatrick, 505 Ohio St., Helena, Ark., wants information, prices, etc., on machinery for manufacturing alcohol from wood waste.

Disappearing Beds.—Dr. C. C. Way, 208 Estes Bldg., Muskogee, Okla., wants prices and description of disappearing beds.

Drainage Canal.—Board of Drainage Commissioners, R. R. Randolph, chairman, Portsmouth, Va., will open bids August 10 for constructing drainage canal and subsidiary ditching in Butts Road District No. 1; length of canal about four miles; bottom width 18 feet; plans and specifications obtained from County Treasurer.

Drinking Fountains.—J. R. Swanson, Cocoanut Grove, Fla., wants prices on drinking fountains for school building.

Drainage.—Bids received by T. W. Carlton, secretary Brazoria County Drainage District No. 3, Alvin, Tex., until noon August 15 on following: 111,056.39 cubic yards dry excavation (open ditches); 23,000 cubic yards wet excavation (improvement of sloughs); 8966 cubic yards of dry excavation (open ditches in the town of Alvin); 5900 feet of storm sewer, together with 18 catch-basins, in the town of Alvin. Copies of maps, profiles, contracts and specifications can be seen in office of T. W. Carlton; A. R. Leckie, drainage engineer.

Drill.—Pennsylvania Equipment Co., West End Trust Bldg., Philadelphia, Pa., wants prices on rock drill to drill 2½-inch diameter holes.

Dumbwaiter.—See "Elevator."

Electrical Distribution System.—Bureau of Yards and Docks, Navy Department, Washington, D. C., receives bids until 11 A. M. August 3 to construct underground distribution system for electric light, power and telephones at Naval Academy, Annapolis, Md.; plans and specifications obtainable from bureau or superintendent of Naval Academy; William M. Smith, acting chief of bureau.

Electrical Equipment.—Empire Fixture Works, W. E. Davis, manager, Carthage, Mo., wants prices on 5-horse-power 220 volt 1200 revolutions-per-minute 60-cycle motors, two 1-horse-power 220-volt 1000 to 1200-revolutions-per-minute 60-cycle motors and ½-horse-power 220-volt 1000 to 1200-revolutions-per-minute 60-cycle motors.

Electrical Equipment, etc.—Proposals received at office of General Purchasing Officer, Isthmian Canal Commission, Washington, D. C., until 10.30 A. M. August 6 for furnishing substation equipment, including switchboard, oil switches and necessary adjuncts; also wood-fiber plaster, plaster of paris, Keene's cement, white Portland cement and hair for plaster. Blanks and general information relating to this circular (No. 722) obtainable from this office or offices of assistant purchasing agents, 24 State St., New York, and 614 Whitney-Central Bldg., New Orleans; also from United States Engineer offices in following cities: Baltimore, Philadelphia, Pittsburgh, Boston, Buffalo, Cleveland, Cincinnati, Chicago, St. Louis, Detroit, Milwaukee, St. Paul, Chattanooga, Louisville, Mobile and Galveston; Commercial Club, Kansas City, and Chamber of Commerce, Quincy, Ill. F. C. Boggs, Major, Corps of Engineers, U. S. A., General Purchasing Officer.

Electrical Machinery.—Gage Y. Kelly, of Lester Light & Power Co., Lester, W. Va., wants prices on electrical equipment, including three miles No. 6 bare copper wire, hard-drawn; other wire, insulators, crossarms, transformers, brackets, bolts, braces, etc.

Electrical Machinery.—McClary-Jemison Machinery Co., Birmingham, Ala., wants second-hand 150-kilowatt 250-volt direct-current generator direct connected to Terry steam turbine; good condition.

Elevators.—Fayetteville Infirmary Co. (Dr. T. M. West to be addressed), Fayetteville, N. C., wants prices on hand-power elevator and dumbwaiter.

Electrical Machinery.—Crystal Ice Co., Keysville, Va., wants new or second-hand one to four-kilowatt generator for factory lighting.

Electrical Machinery.—John F. McNair, Laurinburg, N. C., is receiving proposals on electric dynamos for fertilizer plant.

Elevator.—W. F. Herber, Box 615, Muskogee, Okla., wants prices on hand freight elevator so constructed that it can be converted into electric elevator when enlargement is contemplated.

Engine.—See "Pump."

Engine.—Henderson Brick & Supply Co., Henderson, N. C., wants prices on 45 to 60-horse-power engine.

Engine.—See "Creamery Machinery, etc."

Engines and Boilers.—Germania Refrigeration & Machinery Co., corner Hays and Cherry Sts., San Antonio, Tex., desires to act as Texas distributors for line of slide-valve or four-valve steam engines and boilers.

Feed-mill Equipment.—W. D. Coggeshall, Darlington, S. C., wants prices on elevators, conveyors, food grinders, crushers and mixers.

Fertilizer Plant Equipment.—John F. McNair, Laurinburg, N. C., is receiving proposals for mills, screens, mixers, bagging machines, dynamos, etc., for fertilizer and acid phosphate plant.

Flavoring Extracts, etc.—Joseph Spiero & Co., 17 Battery Pl., New York, want addresses of firms interested in exporting jelly and ice-cream powders, flavoring extracts, grape juice, etc.

Gasoline Tractor.—Proposals received by undersigned for City Council, Columbia, S. C., until 10 A. M. August 8 for furnishing gasoline tractor suitable for use with street sprinkler and street sweeper; must have a drawing capacity equal to that of 12 mules and speed of from three to five miles per hour; bidders requested to submit complete plans and specifications, covering full details of gasoline tractors, for which bids are submitted, and submit price f. o. b. Columbia, S. C., together with guaranteed date of delivery; John McNeal, City Engineer; R. C. Keenan, Councilman Superintendent of Streets.

Glass Jars.—Jas. Bolen, Jr., 1405 Grove Ave., Richmond, Va., wants information relative to manufacture of pomade jars with screw caps.

Graphine Refiners.—G. I. Bryan, R. F. D. No. 2, Chipley, Ga., wants addresses of graphite refining companies.

Heating Plant.—George F. Newman, Greensboro, N. C., wants prices on low-pressure steam-heating plant for six-room bungalow.

Heating Plant.—Fayetteville Infirmary Co. (Dr. T. M. West to be addressed), Fayetteville, N. C., wants prices on hot-water heating plant for $15,000 hospital.

Heating Plant.—Board of Education, T. C. Young, secretary, Dunn, N. C., invites bids and will let contract July 31 for complete heating plant for school building; plans may be seen at office of secretary, or at office of Benton & Moore, Wilson, N. C.

Hoisting Machinery.—Wilmington Iron Works, foot of Orange St., Wilmington, N. C., wants prices on air hoist to lift 1500 pounds.

Hoisting Machinery.—Pennsylvania Equipment Co., West End Trust Bldg., Philadelphia, Pa., wants prices on two 40-horse-power and one 10-horse-power electric hoists.

Iron Fountain.—Joseph Huckins, Jr., Lee-Huckinns Hotel, Oklahoma City, Okla., wants large iron fountain; wants to correspond with manufacturers.

Jelly Powders.—See "Flavoring Extracts, etc."

Laundry Machinery.—See "Ventilating Fans, etc."

Leathers.—Twardowski & Maliniak, 37, Jerozolimska, Warsaw, Russia, want to correspond (view to representation) with American manufacturers of glazed kid and morocco, matt kid, patent and enameled leathers, chrevreaux, chromes, sheep, kangaroo, goat, grain, buff, splits and general shoe, harness and glove leathers. Send cuttings, export prices and commission.

Levee Construction.—Sealed proposals received at office of Board of Commissioners, Red River, Atchafalaya and Bayou Boeuf Levee District, at Alexandria, La., until 12 noon August 7 for construction of levee on right bank of Bayou des Glaizes, from Long Bridge to Coco Point, Avoyelles parish, about 150,000 cubic yards; deposit required $450; bond required $7500. Information, blank forms, etc., obtainable on application to Board of State Engineers, Room 213 New Orleans Court Bldg., New Orleans, La., or to E. G. Richard, president of Board of Commissioners.

Levee Construction.—Office Board of Commissioners, Atchafalaya Basin Levee District, Port Allen, La. Sealed proposals received at office of Board of State Engineers, Rooms 213-215 New Orleans Court Bldg., New Orleans, La., until noon August 6 for following levee on Mississippi River, right bank, Pointe Coupee parish: Buena Vista levee, about 110,000 cubic yards; deposit required $350; bond required $3500; Lower Torras levee, about 85,000 cubic yards; deposit required $300; bond required $4300. Further information, blanks, etc., obtainable on application to Board of State Engineers, or to V. M. Lefebvre, president Board of Commissioners.

Levee Construction.—United States Engineer Office, Metropolitan Bank Bldg., New Orleans, La. Proposals for constructing about 370,400 cubic yards of earthwork in Lower Tensas and Lafourche districts, on east bank of the Mississippi River from Vicksburg to Bayou Sara and on Atchafalaya River, will be received until 11 A. M. August 8. Information upon application. C. O. Sherrill, engineer.

Levee Construction.—Directors Orton Levee District, J. J. Battle, president, Ashdown, Ark., receive bids until August 8 to complete levee, according to plans and specifications on file with board; certified check $1000; contract is for placing 216,000 cubic yards of earth.

Lighting Fixtures.—Proposals for gas and naphtha street lamp fixtures and maintenance received, addressed to Board of Awards in care of Richard Gwinn, City Register, City Hall, Baltimore, Md., until 11 A. M. August 7, in accordance with specifications obtainable at office of Superintendent of Lamps and lighting, City Hall; Robert J. McCuen, Superintendent of Lamps and Lighting.

Locomotives.—Willard Boggs & Co., Spartanburg, S. C., want prices on two 18-ton S. T. 36-inch gauge dinkies.

Locomotive Tank.—Tar River Lumber Co., Rocky Mount, N. C., wants new or second-hand logging locomotive tank that will set in space 6x13 feet; state price delivered and thickness of iron.

Machinery Tools.—Lines Flynn Company, Room 1452, 50 Church St., New York, wants following tools for repair shop, Woodbridge, N. J.: Heavy engine lathe, 36 to 42 inches, taking not less than 8 feet 6 inches between centers; planer, about 48x48 inches, 13-foot bed; radial drill 42 to 48-inch swing, or heavy upright drill with 36-inch table; wheel press, about 150 tons capacity, taking up to 48-inch wheels; second-hand considered, if thoroughly overhauled and ready for work.

Manufactured Products.—E. Runnebaum, Box 42, Cartago, San Jose, Costa Rica, C. A., wants to correspond with manufacturers (view to agency) of cotton and linen cloth, silk goods, woolens, blue and black stuffs for troops, fabrics for ladies and gentlemen (all colors), blankets of all kinds, laces and embroideries, mixed goods and khaki for soldiers, zephyr, socks and stockings, ladies' and gentlemen's ready-made clothing and underwear, cutlery (smaller kind), umbrellas of all kinds, cinematographs and equipments.

Moving-picture Equipments.—See "Manufactured Products."

Nailing Machine.—Box 165, Lynchburg, Va., wants small nailing machine.

Paper Drinking Cups and Machines. D. D. Richards, Columbus, Miss., wants addresses of manufacturers of sanitary drinking cups and vending machines for selling same.

Paving.—City of Vandalia, Mo., receives bids until 7.30 P. M. August 6 to pave 10,000 square yards streets; plans and specifications on file with J. O. Barrow, City Attorney.

Paving.—Sealed bids received until 6 P. M. August 6 (postponed from July 25) at office of Amick & Haynes, City Engineers, Pikesville, Ky., for about 15,000 square yards brick pavement on concrete base; bids must be submitted on blanks furnished by engineers, and plans and specifications may be examined at their office; certified check for $1000.

Paving.—H. A. Skeggs, Mayor, and City Council, Decatur, Ala., receive bids until 8 P. M. August 6 to construct water-bound macadam driveway 16 feet wide and about one mile long; bidders may submit proposals for crushed limestone macadam or Tishomingo gravel macadam; plans and specifications on file with City Engineer; certified check, $500.

Paving.—E. R. Miller, City Secretary, Terrell, Tex., receives bids until noon August 6 to construct 20,000 square yards pavement and 5000 linear feet cement curb and gutter on Moore Ave.; bids received on following materials: Brick, creosoted wood block, rock asphalt, asphalt macadam and Hassam concrete; certified check $500; specifications may be obtained from City Engineer on deposit of $1 for each copy desired.

Paving.—Baltimore (Md.) Board of Awards, care of City Register, City Hall, receives bids until 11 A. M. August 7 to grade, curb and pave following streets: Contract No. 34—Exeter St. from Baltimore to Lombard, from Fayette to Low, and from Gay to Front St., and Monument St. from Fallsway to Ensor St., 13,700 square yards granite block or Hassam granite block. Contract No. 35—Colvin St. from Gay to Front, Buren St. from Madison to Truxton, Truxton St. from Buren to Warden, and Warden St. from Truxton to Eager, 4600 square yards vitrified block; certified check, Contract No. 34, $1100; Contract No. 35, $300; specifications and proposal sheets obtainable from Paving Commission, City Hall; deposit of $5 required for each specification covering contract; plans and profiles on file with H. Kent McCay, chief engineer; R. Keith Compton, chairman Paving Commission.

Paving.—J. E. Cassidy, Mayor, Lexington, Ky., receives bids until 10 A. M. August

FOR the benefit of business concerns, engineers, contractors, machinery manufacturers, dealers and others who find it profitable to follow up daily the industrial, commercial, railroad and financial development of the South and Southwest as published in this Construction Department,

We issue every Business Day in the Year

THE DAILY BULLETIN

The construction news as published in the Daily Bulletin is invaluable to all business people who want to keep in daily touch with the organization of business enterprises of all kinds throughout the whole South. Unlimited possibilities for the creation of business, for securing contract work, for the sale of machinery and supplies of all kinds, for bond buyers and others, are to be found through a close following up of the news in the Daily Bulletin.

The Daily Bulletin is an exceptionally desirable advertising medium.

The subscription price is $25.00 a year. Are you a subscriber to it, or an advertiser in it? If not, you are missing an opportunity for profitable business.

3 to pave following streets with brick, asphalt, wooden block, asphalt block, asphalt binder (macadam), granite block or cement: Mentelle Park, Rose, South Mill, Short, 3d and South Upper Sts.; bids to be made on blanks furnished by engineer and be accompanied by certified check for $500 on each street bid on; for bidding blanks, specifications, etc., address J. E. Cassidy, Mayor.

Paving.—Proposals addressed to P. A. Gorman, Commissioner of Streets, Sewers and Public Improvements, Waco, Tex., endorsed "Proposals for Paving," received by City Secretary at City Hall, and opened at 10 A. M. August 6, for furnishing all labor and material to pave following streets: From north side of Washington to south side Herring on 5th St., 39,544 square yards; south line of Austin to north line Franklin on 7th St., about 1167 square yards; south line of Franklin to south line Mary on 7th St., 1650 square yards; north line of Mary to south line Jackson on 6th St., 2990 square yards; west line of 5th to east line 6th St. in alley between Austin and Washington, 778 square yards; west line of 8th to east line 11th St. on Franklin St., 7120 square yards; contractors are instructed to submit bids on each street separately; certified check, payable to Mayor, for 5 per cent. of amount of bid; special specifications considered on following classes of pavement: Brick, bitulithic, Dolarway, Hassam, sheet asphalt, asphaltic concrete, granitoid and wood block; specifications, profiles and plans ready for inspection at City Engineer's office on and after August 1; J. H. Mackey, Mayor.

Paving.—Dan C. Smith, Jr., City Secretary, City Hall, Houston, Tex., receives bids until noon August 12 to grade and pave following streets: Houston Ave., vitrified brick on five inches of concrete; removal of old asphalt and sub-base, grading, etc.; German St., vitrified brick on eight inches of gravel, grading, etc.; Dallas Ave. and San Felipe St., vitrified brick on eight inches of gravel, grading, etc.; Webster Ave., vitrified brick on five inches of concrete, grading, etc.; vitrified brick furnished by city and delivered on ground; certified check 5 per cent. of cost of each street; bidders are to bid on each street separately, and quantities are given in specifications, which can be obtained upon application at office of F. L. Dormant, City Engineer; H. B. Rice, Mayor.

Pipe, Fittings, etc.—See "Ventilating Fans."

Pump.—City of Palmyra, Mo., J. W. Owsley, Mayor, wants pump to send water about two miles; also engine to operate pump.

Pumps.—E. L. Deaver, Gatesville, N. C., wants to correspond with manufacturers of hand and power spray pumps; view to agency.

Quay Wall.—Proposals, endorsed "Proposals for water-front improvement," received at Bureau of Yards and Docks, Navy Department, Washington, D. C., until 11 A. M. August 24, then opened, for new quay wall (water-front improvement), Navy-yard, Washington, D. C.; amount available $50,000; plans and specifications obtainable on application to bureau or to commandant of navy-yard named. Wm. M. Smith, Acting Chief of Bureau.

Rails.—Willard Boggs & Co., Spartanburg, S. C., want prices on three-quarter mile 50-pound rails.

Railway Equipment.—E. S. McCarty (recent purchaser of Pine Bluff, Sheridan & Southern Railway), Sheridan, Ark., wants 14 miles 56 to 60-pound relay rails, with fastenings; 20 to 30 good 60,000 capacity flat cars; Mogul locomotive, 50 to 60 tons.

Refrigerating Machinery. — See "Creamery Machinery, etc."

Road Construction.—Jackson County Good Roads Commissioners, M. F. Anderson, chairman, Gainesboro, Tenn., receive bids until 1 P. M. August 8 to grade, ditch, drain and macadamize 20 miles roads; plans and specifications on file with engineer.

Road Construction.—Clay County Commissioners, Green Cove Springs, Fla., will open bids August 5 on grading and stumping road from Putnam county line to Duval county line.

Road Construction.—Bids received by Commissioners of Talladega county, Courthouse, Talladega, Ala., until noon August 28 for grading, draining and surfacing with gravel part of Talladega and Mardisville Rd.; expenditure $8000; certified check $400; W. S. Keller, State Highway Engineer, Montgomery, Ala.

Road Construction.—Special Road and Bridge District No. 1, West Palm Beach, Fla., will open bids at 12 noon September 3 for road building after plans and specifications; $85,000 available; C. H. Ruggles, County Engineer, West Palm Beach; Hutson B. Saunders, Jr., Clerk Circuit Court.

Road Construction.—Calhoun County Commissioners, Port Lavaca, Tex., receives bids until 2 P. M. August 2 to construct shell road from Port O'Connor to Victoria county line; certified check $500; plans and specifications on file with L. A. Gueringer, civil engineer, Victoria, Tex.; Willett Wilson, County Judge.

Road Construction.—Leon County Commissioners, Centerville, Tex., receive bids until noon August 12 to construct roads in Leona and Flynn Road District No. 5; $11,000 bond issue voted; plans and specifications on file with W. D. Lacey, County Judge, and will be furnished on request; certified check $250; bids to be addressed to W. D. Lacey, County Judge; for information apply to F. A. Gayle, Marquez, Tex.

Road Construction.—State Roads Commission, O. E. Weller, chairman, 534 N. Howard St., Baltimore, Md., receives bids until noon August 13 to build 11 sections of State highway aggregating 23.66 miles. Dorchester county—along Hurlock-Shiloh Church Rd., 1.42 miles macadam); along Cambridge-Mt. Holly Rd., 3.05 miles (stone surfacing). Kent county—along Locust Grove-Galena Rd., 3.78 miles (macadam). Prince George's county—along Baltimore-Washington Blvd. from Main St., Laurel, to Crow Run, .62 mile in length (pitch macadam). Queen Anne's county—along Centerville-Wye Mills Rd., 2.50 miles (macadam); along Centerville-Wye Mills Rd., 4.60 miles (macadam). Talbot county—along Easton-Wye Mills Rd., 1.44 miles (macadam). Wicomico and Dorchester counties—approaches to Nanticoke bridge, between Wicomico and Dorchester counties at Sharptown. Baltimore county—along Baltimore-Washington Blvd. from B. & O. Railroad crossing at Morrell Park southerly for 1.50 miles (pitch macadam). Charles county—along road from Tompkinsville ot Rock Point, 4.75 miles (concrete roadbed, with bituminous wearing surface). Bids to be made upon blank form contained in book of specifications furnished by commission upon application and payment of $2 for each section; blueprints of each section furnished at rate of 25 cents for each half-mile; certified check $500, payable to the State Roads Commission.

Road Construction.—Harford County Commissioners, Belair, Md., receive bids until noon August 12 to construct section of State-aid highway upon or along Wesley Chapel Rd. from Havre de Grace toward Wesley Chapel, 1.21 miles, and upon or along Belcamp Rd. from Belcamp Station to Casilley Corner, 1.57 miles; bids to be made on forms furnished by State Highway Commission, 534 N. Howard St., Baltimore, Md.; certified check $200; plans can be seen and forms of specifications and contract obtained from State Roads Commission; W. A. Wheeler, County Clerk.

Road Construction.—Anne Arundel County Commissioners, S. O. Tilghman, clerk, Annapolis, Md., receive bids until noon August 6 to construct section of State-aid highway upon or along Pennington Ave. from Patapsco Ave. to Dry Branch; bids to be made on blank forms furnished by State Roads Commission, 534 N. Howard St., Baltimore, Md.; certified check $200; plans can be seen and forms of specifications and contract obtained from State Roads Commission.

Road Construction.—Henrico County Clerk, Richmond, Va., receives bids until noon August 6 to construct one mile of macadam road on Patterson Ave. from city limits to Woodlawn Ave. in county; plans and specifications on file with clerk and P. St. J. Wilson, State Highway Commissioner, Richmond; specifications furnished on application to State Highway Commissioner; certified check $250.

Road Grading, etc.—Bids received by Commissioners of Walker county, Jasper, Ala., until 11 A. M. August 22 for grading and draining part of Jonesboro Rd. beginning at Frogague Creek; expenditure $8000; certified check $500; W. S. Keller, State Highway Engineer, Montgomery, Ala.

Road Roller.—Office Commissioners District of Columbia, Washington, D. C. Proposals received until 2 P. M. August 5 for furnishing and delivering steam road roller. Specifications and form of proposal may be obtained from purchasing officer.

Reservoir Construction.—City Council, City Hall, Parkersburg, W. Va., receives bids until 10 A. M. August 8 to construct 6,000,000-gallon reinforced concrete circular reservoir on Boreman Hill; plans and specifications on file with Frank Good, City Clerk, and L. E. Chapin, engineer, 1017 Frick Bldg., Pittsburgh, Pa.; specifications and plans obtainable from engineer on deposit of $5; certified check $1000.

Safe, etc.—Bank of Olive Branch, Miss., wants prices on safe, vault and other bank fixtures.

Saw Trimmer.—Box 165, Lynchburg, Va., wants second-hand 18-foot two-saw trimmer.

Septic Tank, etc.—J. R. Swanson, Cocoanut Grove, Fla., wants prices on septic tank and automatic closets for school building.

Sewer Construction.—Sealed proposals received by city of Columbia, S. C., until 10 A. M. August 8 for material and construction of circular concrete storm-water drain and appurtenances on Elmwood Ave. and on Winyah St.; about 2050 linear feet, 42, 48 and 60 inches inside diameter; completion within 90 days; certified check for $100; John McNeal, City Engineer; R. C. Keenan, Council Superintendent of Streets.

Sewer Construction. — Central State Hospital, William F. Drewry, superintendent, Petersburg, Va., receives bids until 6 P. M. August 5 to construct one mile sewer pipe line from hospital to Appomattox River, consisting in part of cast-iron pipe supported by steel viaduct and in part of terra-cotta pipe; plans and specifications furnished on application.

Sewer Construction. — A. N. Sloan, Commissioner, Department Streets and Sewers, Chattanooga, Tenn., receives bids until 11 A. M. August 6 to construct vitrified brick and pipe sewers on Highland Park Ave. from Henderson to Union Ave.; plans and profiles on file with City Engineer, and specifications, with blank proposal forms, contract and bond furnished on application accompanied by deposit of $5; certified check $250.

Sewer Construction.—J. E. Cassidy, Mayor, Lexington, Ky., receives bids until 10 A. M. August 3 to construct sanitary sewers on East High and Merino Sts. and Rand and Kentucky Aves.; eight-inch pipe, with house connections of five-inch pipe to curb line; certified check $100.

Sewer Construction. — City of St. Louis, Mo., Room 300 New City Hall, receives bids until noon August 9 to construct second section of North Harlem joint district sewer; plans, specifications, form of contract and other information may be had at offices of Board of Public Improvements and Sewer Commissioner.

Sewer Construction.—Baltimore (Md.) Board of Awards receives bids until 11 A. M. August 7 to construct miscellaneous sanitary lateral sewers as shown on plans on file with Calvin W. Hendrick, chief engineer Sewerage Commission; specifications and plans may be obtained from Sewerage Commission, 904 American Bldg.; charge of $5 for each specification and blueprint; certified check $1500; approximate quantities, 11,000 linear feet vitrified pipe sewer 8 to 18 inches diameter and 6500 linear feet vitrified pipe house connections.

Sewer Construction and Materials.—City of Blackville, S. C., will open bids September 17 for sewer construction, including 10,000 linear feet 8-inch, 2000 feet 10-inch and 2000 feet 12-inch terra-cotta pipe, and 80x12x7-foot disposal plant; J. Newton Johnston, engineer, Florence, S. C., asks prices on manhole rings and covers, 22 inches diameter five-inch flush-tank supplies; terra-cotta pipe.

Sewer Construction.—Bids received at offices of City Secretary and City Engineer, San Benito, Tex., until 8 P. M. August 30 for construction of sanitary sewerage system. The engineer's approximate estimate is as follows: 7000 linear feet 8-inch vitrified pipe sewer, Portland cement mortar joints, 4 to 6-foot cut; 4000 linear feet 8-inch vitrified pipe sewer, Portland cement mortar joints, 6 to 8-foot cut; 1400 linear feet 8-inch vitrified pipe sewer, Portland cement mortar joints, 8 to 10-foot cut; 750 linear feet 10-inch vitrified pipe sewer, Portland cement mortar joints, 4 to 6-foot cut; 750 linear feet 10-inch vitrified pipe sewer, Portland cement mortar joints, 6 to 8-foot cut; 1375 linear feet 12-inch vitrified pipe sewer, Portland cement mortar joints, 6 to 8-foot cut; 750 linear feet 12-inch vitrified pipe sewer, Portland cement mortar joints, 8 to 10-foot cut; 2050 linear feet 14-inch vitrified pipe sewer, Portland cement mortar joints, 8 to 10-foot cut; 1895 linear feet 16-inch vitrified pipe sewer, Portland cement mortar joints, 10 to 12-foot cut; 2300 linear feet 24-inch vitrified pipe sewer, Portland cement mortar joints, 10 to 12-foot cut; 1750 linear feet 24-inch vitrified pipe sewer, Portland cement mortar joints, 12 to 14-foot cut; 17 brick and Portland cement mortar manholes with cast-iron cover complete, 1 to 14 feet to grade; 1 disposal plant, consisting of 1 brick and Portland cement catch well, depth 22 feet, diameter 18 feet; one 10-inch submerged centrifugal pump, installed with discharge pipe complete; 1 electric motor to propel above pump, installed complete; 1 filter bed, 150x300 feet, natural soil, with 4-inch drain tile lines, with 30-inch centers at 4-inch depth. Plans and specifications will be on file on and after August 10 in offices of City Secretary and City Engineer, with a certified check of $1000; copies of plans and specifications furnished on receipt by City Secretary of $5. By John M. Brown, Mayor; Brice Frazier, City Secretary; B. S. Gentry, City Engineer.

Skidder.—H. D. Walker, 129 Lomax St., Jacksonville, Fla., wants to purchase second-hand cypress skidder, with equipment; give price and location.

Stationery.—Bailey Printing Co., Henry Bailey, manager, West Point, Miss., wants addresses of manufacturers of paper stock of all kinds, envelopes and specialties.

Steel Cages.—See "Building Materials, etc."

Stave Mill.—Southern Lumber & Manufacturing Co., Nashville, Tenn., will purchase outfit for mill with capacity 10,000 staves daily.

Steam Shovel.—Pennsylvania Equipment Co., West End Trust Bldg., Philadelphia, Pa., wants prices on steam shovel, 15 to 30 tons, for handling ore.

Steam Shovel.—Willard Boggs & Co., Spartanburg, S. C., want prices on model 90 (Marion preferred) steam shovel.

Steel-drum Machinery.—Box 741, New Orleans, La., wants addresses of manufacturers of machinery for manufacturing 55 and 110-gallon galvanized steel drums and barrels of 18, 16 and 14-gauge material; welded process preferred.

Tanks.—Bids received at office of Dan C. Smith, Jr., City Comptroller and Secretary, Houston, Tex., until noon August 12 for construction and setting of two steel oil tanks; plans and specifications on file at office of City Engineer; certified check $100; H. B. Rice, Mayor.

Textiles.—See "Manufactured Products."

Vacuum Cleaner.—Bids received at East Radford, Va., until August 19 for vacuum sweeping system for administration building, State Normal and Industrial School for Women. Address for information Chas. M. Robinson, architect, Richmond, Va.; W. T. Baldwin, chairman building committee.

Vending Machines.—See "Paper Drinking Cups and Machines."

Ventilating Fans, etc.—Proposals received at Bureau of Supplies and Accounts, Navy Department, Washington, D. C., until 10 A. M. August 20, and publicly opened immediately thereafter, to furnish at Navy-yard, Philadelphia, a quantity of naval supplies as follows: Schedule 4725, ventilating fans; schedule 4729, flat-work ironer; schedule 4736, brass rod, brass and copper pipe, wrought pipe, pipe fittings. Applications for proposals should designate schedules desired by number. Blank proposals furnished upon application to navy pay office, Philadelphia, Pa., or to bureau. T. J. Cowie, Paymaster General, U. S. N.

Wagons.—J. S. Wilson, Bailey, N. C., wants addresses of manufacturers of ball-bearing farm wagons.

Water-works. — City of McCurtain, Okla., will want prices on complete purchase of water-works material and machinery; C. N. Edwards, chairman of City Council.

Water-works.—L. H. Baker, secretary-treasurer, Shreveport, La., invites bids until 10 A. M. August 5 to construct 100,000-gallon steel water tank, 4500 linear feet six-inch cast-iron water mains, 15 double nozzle steamer connections and fire hydrants and all necessary connections; certified check 10 per cent. of bid; plans and specifications on file with City Engineer.

Water-works Materials.—J. Newton Johnston, engineer, Florence, S. C., wants prices on boilers, tanks, cast-iron pipe, compound duplex service pump and air compressor for water-works construction at Blackville, S. C.; construction bids asked by city of Blackville to be opened about September 17.

Well-drilling Equipment. — W. H. Marshall, Elkton, Va., wants well-drilling equipment without power; drill that can be connected to line shaft at two points; has engines and boiler.

Wire Baskets.—J. S. Wilson, Bailey, N. C., wants addresses of manufacturers of wire cotton baskets.

Woodworking Machinery. — Crystal Ice Co., Keysville, Va., wants small sawmill for cutting tobacco hogshead staves.

Woodworking Machinery. — Crocker-Wheeler Company, Birmingham, Ala., wants addresses of manufacturers of machinery for cutting wood paving blocks.

Woodworking Machinery. — Atlantic Salt Hay Co., 1011 Chestnut St., Room 538, Philadelphia, Pa., wants second-hand planer and machines for cutting box slats and band holes in end crates; also second-hand basket (veneering and chopper) machinery.

INDUSTRIAL NEWS OF INTEREST

Planing Mill for Sale.

A planing mill fully equipped with modern machinery and in a desirable location on the Belt Line Railroad at Norfolk, Va., is offered for sale in our advertising columns. This location makes available free transfer charges on both incoming and outgoing shipments. It is stated that this mill may be easily converted into a box factory.

Architect and Builder.

An architect and builder who desires to change his location to a city of from 10,000 to 30,000 population would like to receive information regarding such opportunity addressed to Box 783, Greensboro, N. C. He desires to establish his office where competitive railroad facilities exist, backed by exceptionally good agricultural surroundings.

Standard Plunger Elevator Co.

A new line of single worm-gear elevator equipment has been brought out by the Standard Plunger Elevator Co., Washington, D. C. It is described as light and speedy, and adapted to elevators in office buildings up to eight stories, and is designed particularly to keep the operating costs low. The equipment has already been placed on the market.

Barges for Cotton Oil Company.

The Pascagoula Shipbuilding Co., Pascagoula, Miss., has closed a contract with the Southern Cotton Oil Co. of New Orleans for two barges of 33x100 feet, which are to be completed within 90 days. The work is to be done on Krebs Lake, in Pascagoula, where the company has constructed a number of barges. These two barges will cost $4500 each.

Hutchinson Coal Co.

The Western business of the Hutchinson Coal Co. of Fairmont, W. Va., will be handled by J. G. Wolfe, Western manager for the company, Rockefeller Bldg., Cleveland, O. This company produces Fairmont gas steam coal, "Kirkwood" steam, Pittsburgh No. 8, Logan county splints, "Linden Chunks" and Kanawha gas coals. He has had many years of experience in the coal business, and for some time has been connected with the general offices of the company at Fairmont.

Upton & Ard, Engineers.

W. L. Upton and Charles E. Ard have formed the firm of Upton & Ard, consulting and constructing engineers, Birmingham, Ala. They will act as consulting engineers in municipal work and as either consulting or constructing engineers or both for corporations and individuals in the development and application of power for public service or private industries. This may include not only the power plant, but all buildings and structures incident to such application of power.

The Niagara Universal "Rench."

In its system of applying simplified spelling to its products, the Niagara Falls Metal Stamping Works, manufacturer of hardware specialties, Niagara Falls, N. Y., has named its new handy wrench the "Niagara Universal Rench." It is a flat wrench 7 inches long with 6 hexagonal openings to fit nuts up to ¾ inch and 3 small square nut wrench openings. In addition to these, the end is finished as a screwdriver, so the whole tool contains "nine renchiz and a skrudriver" within a 7-inch length, making the "10 in 1" wrench.

Vincennes Bridge Co.'s Contracts.

Recent contracts awarded the Vincennes Bridge Co. of Vincennes, Ind.; Memphis, Tenn., and Muskogee, Okla., give it an unusually large volume of business. It is at present making preparations for the construction of a bridge 3800 feet long at Lake City, Ark. This bridge crosses the lake at that point, the center span being a draw. Another bridge on which this company will shortly begin work will be built at Fayetteville, Ark. It will be 450 feet long, the center span being 200 feet, with two approach spans of 125 feet each. Concrete abutments and piers will be used.

Vulcan Engineering Sales Co.

The selling agency for the structural and plate working machinery, punches, shears, rolls, etc., manufactured by the Rock River Machine Co. of Janesville, Wis., has been taken by the Vulcan Engineering Sales Co., Fisher Bldg., Chicago. This is in addition to the lines already controlled by the Vulcan company, which include the products of the Hanna Engineering Works, making pneumatic riveters; the Mumford Molding Machine Co., making molding machines and foundry equipment, and the Q. M. S. Co., manufacturer of metal sawing machinery and shop equipment. The Vulcan Engineering Sales Co. makes a specialty of machinery for structural works, boiler shops and foundries.

Engineer for Southern Properties.

The organization of the firm of Ford, Bacon & Davis has been increased by the addition of Alexander Leslie Black, who has recently become its engineer in charge of Southern properties. Mr. Black is a native of New Orleans. He graduated from the School of Mines, Columbia College, New York, and engaged in mining engineering work in various sections until 1894, when he was placed in charge of the reconstruction for electric operation of the St. Charles Street Railroad Co. of New Orleans. Since the New Orleans companies consolidated in 1901 he has been the engineer for the New Orleans Railway & Light Co., controlling the street railroads and lighting companies of New Orleans.

Opens a Southern Branch.

In order to insure better service to its steadily increasing Southern trade, the Main Belting Co., manufacturer of "Leviathan" belting, 12th and Carpenter Sts., Philadelphia, has established a Southern branch at 22 S. 20th St., Birmingham, Ala. The company has been carrying a large stock of belting in Birmingham, and making it a branch office will largely increase its facilities for selling to the user direct. The manager of the company states that by following this policy it is better able to insure the customer getting the proper size for each individual drive, thus securing the greatest amount of service with each belt. James D. Scruggs, formerly of Memphis, is the manager of the Birmingham branch.

Pullman Automatic Ventilators.

The efficiency and utility of automatic roof ventilators are becoming more fully appreciated by industrial firms and responsible authorities since it is realized such ventilation materially improves working conditions. The advantages to be found in Pullman automatic ventilators are attested by their users, among which are many of the noted industrial plants of the country. Treasurer M. G. Hess of the Manheim Manufacturing & Belting Co., Manheim, Pa., has stated that the Pullman ventilators installed in its buildings have given satisfaction and excellent service in every respect. Companies using them where acid fumes must be carried off through the ventilators have found that they stand the severe service and carry off the fumes effectively. The ventilators are manufactured by the Pullman Automatic Ventilator Manufacturing Co. of York, Pa., and are easily shipped to any point desired.

Waterloo Gasoline Engine Co., South

The agency for the distribution of the "Waterloo Boy" gasoline engine in the States of North and South Carolina, Georgia and Florida is held by the Waterloo Gasoline Engine Co., South, of Salisbury, N. C. The company carries in stock at Salisbury about 100 engines, which enables it to make prompt shipments to any part of the South. A large supply of repair parts for the "Waterloo Boy" is also carried. This company has recently contracted for the output of the Imperial corn mill, manufactured by R. C. Meadows, Poors Knob, N. C. The Imperial mill has only recently been patented, and it is stated that it contains many superior features. The buhrs used are obtained from the Rowan county quarries. The frame is of cast-iron, and has been designed to come within the reach of individual farmers in cost. It will be handled through jobbers and dealers in machinery in every State where there is a demand for such equipment. It is stated that the South will use more mills of this class than any other section of the country.

Electricity for Industrial Plants.

The use of electric power in industrial plants is constantly increasing, as shown by the sales of the manufacturers of equipment for such use. Among the recent sales of the General Electric Co., Schenectady, N. Y., are many for plants in the South. The B. F. Huntley Furniture Co., Winston-Salem, N. C., has completed plans for operating its factory by electric power. Two generators, switchboards and 47 motors, ranging from 1 to 30 horse-power, are being furnished by the General Electric Co. The Amalgamated Phosphate Co., Jacksonville, Fla., will install Curtis turbo-generators with complete equipment for operating the machinery throughout the mill. The Pierce Phosphate Co. of Pierce, Fla., will install additional apparatus for electric drive in its mills, including 10 motors with oil switches, transformers, etc. Among other companies now preparing to install equipment manufactured by the General Electric Co. are the H. W. Johns-Manville Company of New York, for its new plant at Bound Brook, N. J.; the Fuller-Warren Company, Milwaukee, Wis., for equipping its stove works with 61 motors, ranging in capacity from 1½ to 50 horsepower, and the Semet Solvay Company, Syracuse, N. Y., which will install one 1875 K. V. A. Curtis turbo-generator.

TRADE LITERATURE.

Cameron Steam Pumps.

The opening of its new storeroom at 511-513 W. 42d St., New York, is noted by the A. S. Cameron Steam Pump Works, Bowling Green Bldg., 11 Broadway, New York, in an attractive little pamphlet, which includes illustrations of the various Cameron pumps. The company's offices have been removed from the foot of E. 23d St. to the Bowling Green Bldg. in order to obtain more commodious quarters and to increase the facilities for taking care of the increasing demands made upon it by its large number of customers.

Stand For Electric Drill.

A sensitive drilling stand designed to fill a need where accurate and rapid drilling is required has been placed on the market by the Chicago Pneumatic Tool Co. to be used in connection with its Duntley electric drills. This stand is substantially made and will take standard portable drills of the 000 or No. 000x types, which are respectively for three-sixteenth and one-quarter-inch capacity of metal. The drill is held in place by two clamping straps with screws and thumb nuts. It can thus be removed from the stand very quickly and used as a portable tool.

Keystone Integral Waterproofing.

The three methods of waterproofing which have been followed in concrete and cement work are described in a pamphlet issued by the Integral Waterproofing Co., 50 Church St., New York. In connection with these different forms, the advantages of the Integral method are stated with special reference to the Keystone integral waterproofing as manufactured by this company. Directions for its use with concrete, brick masonry, stone masonry and with stucco are given. A list of a large number of important buildings and other cement work, waterproofed with Keystone Integral waterproofing, is included.

Coopers' Tools.

Edge tools and machine knives of various types used by coopers are illustrated and described in the 1912 catalogue of the L. & I. J. White Co., Buffalo, N. Y. This company was established in 1837, and it is stated that by the experience acquired and the installation of up-to-date machinery great efficiency in producing goods of this particular line has been attained. The catalogue includes tools used in the turpentine industry. This company also manufactures tools for carpenters, ship-joiners, butchers and other users of edge tools. A general catalogue covering these lines has been issued. Barrel heaters using coke, coal or wood are included in the catalogue, together with price lists.

Tests for Metal Laths.

A large illustrated folder with descriptions of the tests recently made by the building department of the city of Cleveland, O., has been issued and may be obtained by addressing H. B. McMaster, Commissioner of the Associated Metal Lath Manufacturers, Youngstown, O. Six panels were constructed of various forms of laths and studding, covered with different forms of plaster. The results of these tests proved particularly interesting, and they were observed by a large number of officials from various cities, underwriters' agents, architects, engineers, contractors, building inspectors, manufacturers and others interested in the use of building material.

Forged Steel Valves.

The great strength and reliability of forged steel valves make them particularly desirable for high-pressure work. The Patterson-Allen Engineering Co., 2 Rector St., New York, has issued a folder describing Patterson-Allen forged steel valves and stating their advantages for superheated steam and other high-pressure installations. These valves are forged in steel dies, which insures uniform thickness throughout. They are required to stand a hydrostatic test pressure of 1500 pounds per square inch before leaving the factory. They are made with Monel metal seats and discs and with nickel steel stems. It is stated that the valve is so constructed that it will seat properly, regardless of any deflection.

Residences Built With Cement.

The use of cement in building residences of the cement-block type, concrete stucco over wood and metal laths, concrete stucco blocks, stucco on "Tilecrete," as manufactured by the Concrete Products Co., New York, and other forms of concrete construction, are illustrated in the latest issue of the Edison Aggregate. These buildings were constructed of cement manufactured by the Edison Portland Cement Co. of New Village, N. J., with sales offices in the St. James Bldg., New York, and the Arcade Bldg., Philadelphia. The advantages of Edison waterproofing paint are stated in this publication and the directions for applying are also given. Other forms of construction included show concrete and stucco barns and concrete sidewalks, curbs and gutters, a concrete tank with removable heater, railroad platforms and switch towers.

Hydraulic Dredges.

The various parts and features of hydraulic dredges and accessories are illustrated and described in the pamphlet issued by the Norbom Engineering Co., Denckla Bldg., Philadelphia. This company makes a specialty of building hydraulic dredges and machinery for their operation. The company gives prospective purchasers and customers the benefit of its extensive experience in dredging work, and states that it will give prompt attention to correspondence from interested persons. The pamphlet contains a statement of the data required in order to build a dredge and machinery to produce the required results. The special cutter used with these dredges is shown in detail and its advantages stated. This company also furnishes pipes, valves, clamps, rubber sleeves and other fittings necessary in the operation of a hydraulic dredge.

Thermit Welding.

The process of Thermit welding as applied to the welding of rails on railroads and electric lines, the repair of broken shafts and stern posts of vessels, connecting rods, boiler supports and other large and unwieldy machine parts, is described and illustrated in "Reactions," published quarterly by the Goldschmidt Thermit Co., 90 West St., New York. The issue for the second quarter of 1912 contains an article by Dr. Hans Goldschmidt, the inventor of the Thermit process and president of the Goldschmidt Thermit Co. The importance of this form of welding, with its advantages and increasing use in the United States, is clearly brought out in this publication. The process is described in detail in pamphlets Nos. 12, 16 and 25, which will be sent on request to the company.

H. B. Smith's Rip-Saw Machines.

The 335-A and 336-A rip-saw machines, manufactured by the H. B. Smith Machine Co., Smithville, N. J., are described and illustrated in a folder issued by the company. This company has been building self-feed rip-saws for many years, but in the last few years has developed a new machine with important improvements. The new automatic saw has a substantial frame with broad cross-girts, having plain joints and bolted firmly together. A projection of the frame provides a substantial outside bearing for the mandrel, and other projections afford support for the feeding mechanism. It is stated that the No. 336-A, 24-inch, heavy self-feed rip-saw has been so successful that the company has built a medium size machine on the same general plans, forming the No. 335-A rip-saw with automatic feed. The new machine is of medium weight, strongly driven and operates saws as large as 16 inches, which will cut as deep as four inches.

Lime on the Farm.

The subjects of the use of lime on the farm, the proper time to apply it, the conditions of soil which require lime, the advantages of its use, etc., are treated in "Farm Economies," published quarterly by the Security Cement & Lime Co., Equitable Bldg., Baltimore. In order to insure prompt shipments of lime from this company's plant at Berkeley, W. Va., the company has adopted a standard type of steel tank which can be

filled with lime, fresh from the kilns between seasons, sealed tightly so that the contents are kept safe from deterioration until the most active seasons for shipping lime arrive. The tanks installed are capable of holding 4000 tons, so that the question of day to day output of kilns is eliminated so far as prompt shipments are concerned. This considerable additional expense has been made in order to give the highest-class service to its customers.

Tryon's Tourist Hotels.

The attractions of Tryon, N. C., as one of the leading resorts of Western North Carolina are stated in a pamphlet issued by Eugene Brownlee, managing director of Oak Hall, one of the tourist hotels of Tryon. Tryon is described as the first resort of importance reached on the Southern Railway in coming to Western North Carolina from the South. From a scenic point of view it is one of the most beautiful sections of North America. Tryon is built upon hills ranging from 1000 to 1500 feet in altitude, while the mountains surrounding reach a height of 3500 feet. One of the strongest points in regard to Tryon's climate is the dryness of the atmosphere. It lies in a thermal belt extending for several miles along this mountain range, which is entirely free from dew. The temperature is mild, with cool nights and no extreme heat. Its summer visitors are drawn from all points of the South. Oak Hall is a tourist hotel, located on a hill just above the business part of the town, and is surrounded by an extensive grove of oak trees providing shady grounds. There are fine views in every direction, and the drainage is excellent.

MOTOR VEHICLES AND TRACTORS

Automobiles in Maryland.

Figures compiled by John K. Harper of the Ford Automobile Co., Baltimore, show that up to June 1 there were issued 7816 automobile licenses for Maryland. Of this number 780 were for Ford automobiles; 424, Buick; 284, Cadillac; 239, Packard; 266, Maxwell; 241, Chalmers; 193, E. M. F.; 169, Overland; 127, Hudson; 118, Franklin. According to these figures, these 10 cars are the leaders in the number used in Maryland. This company is the Baltimore agent for the Ford Motor Co. of Detroit.

Titanium Steel in Automobiles.

In speaking of the use of titanium in the manufacture of steel for automobiles and the advantages of using this form of steel, B. C. Spitzley of the Abbott Motor Co., Detroit, makes the following statement: "The fact that titanium is now being used in the manufacture of steel rails makes the new element exceedingly interesting to automobile makers who are ever on the lookout to better their product. Mixed with the molten metal while being cast into ingots, it eliminates the impurities which would otherwise weaken the steel. Steel can be treated with it at a cost of 75 cents a ton, and thus be increased nearly 20 per cent. in tensile strength, or more than by any other known process. Titanium added to the molten metal causes impurities to rise to the surface, where they can be easily removed. Tests made with titanium rails showed that they lose but little in wear. Tested with the trip hammer they stood pounding without cracking and could be twisted into all sorts of shapes. Titanium may prove a boon to automobile manufacturers."

Motor Street Sprinklers.

American municipalities have been comparatively slow in taking up motor truck apparatus in their street and sanitary engineering departments, primarily because the motor manufacturers have not in very recent years devoted attention to the development of body designs suitable for municipal service. In Europe the motor-driven road sprinkler, road-oiling machine and motor garbage wagons have been in service for several years, and European municipalities have developed the use of motor truck apparatus to a high degree of efficiency. For instance, in Rouen, France, all street cleaning apparatus is of motor-driven type, and economies as great as 150 per cent. over former horse equipment are reported. In New York City Commissioner Edwards is now experimenting with motor garbage carts, and reports that the cost by former equipment was as much as 80 cents per ton of garbage removed, whereas the motor trucks have shown a cost of but 23 cents per ton. The International Motor Co., Broadway and 57th St., New York, which claims to be the largest of exclusive motor-truck manufacturers, has begun the development of municipal apparatus which offers some very practical and exclusive points of design. This company has recently sold to the city of St. Louis a motor street sprinkler of unique design, which is said to be the most highly developed type of water wagon so far put out in this country. This St. Louis water wagon is built on a six and a half ton standard Saurer chassis. The water tank has a capacity of 1400 gallons.

Motor Truck Efficiency.

An interesting example of motor-truck efficiency and economy is found in the test made with a two-ton General Motors truck in the service of the Schwabacher Bros. Company, wholesale grocer, in Seattle, Wash., a city noted for its hills. It was thought that the truck would not be practical for wholesale grocery delivery on account of there being so many stops for each load of goods, and it was claimed that the truck could not be kept in continuous operation enough hours each day to make any saving over horse delivery. After a six-months' trial, however, it was found that this motor truck, manufactured by the General Motors Truck Co. of Detroit, not only did increase the efficiency of the service, but effected a saving. For the six months the expense averaged $150 a month. This included driver's wages, garage expenses, oil, gas, tire replacements and all other incidentals. During this period the truck carried 1,950,000 pounds of goods. The total cost of delivery a ton was 93 cents, and the average price for team deliveries as charged by the transfer companies for making deliveries for the wholesale grocers in the same territory covered by this particular truck is from $1 to $2 a ton. The shipping clerk of this company states that the average cost a ton for the territory covered by the truck would, by teams, be $1.00, which is considered conservative. This would give the truck credit for a saving of 67 cents a ton, making a total saving of $633.25 for the six months' service. The original cost of this machine was $3000, which proves that a motor truck, in almost any kind of service where road conditions are at all practical, will show a net profit of over 40 per cent. per annum in its saving over the old-fashioned horse delivery.

Kissel Kar Experiences.

The files of the Kissel Motor Car Co., Hartford, Wis., contain letters from users of Kissel Kar trucks in over 75 lines of trade. The experience of Alexander H. Revell & Co. of Chicago during the excessive blizzard of February 26, 1912, a day when horses were unable to travel to any extent, was merely the experience that would have come to any owner of a good truck service. Revell & Co. used four Kissel Kar trucks on that day, covering a total of 124 miles and making 95 deliveries. Last March, during a week of incessant rain, with roads in such condition as almost to preclude horse haulage, the New Jersey Flour Co. of Passaic, N. J., operated a four-ton Kissel Kar truck 290 miles, all in country traffic, delivering 984 barrels of flour. This company wrote: "We consider this a greater amount of business delivered than could be possible with four teams of horses." The Kansas City Transfer Co. of Kansas City, Mo., hitched a three-ton Kissel Kar truck to a trailer on which was a 37,000-pound boiler, and a haul of a mile and a quarter of this huge bulk was made in 40 minutes. Some time previously it had taken 12 horses 10 hours to do this. One owner engaged in a business that does not involve much delivering wrote that he was able to make a profit by undertaking the drayage of neighboring merchants similarly situated. That motor trucks under nearly all normal circumstances are less expensive to operate and care for than horses is a fact the proof of which is made stronger by investigating the exceptional instances where they do not seem to be so. The study of the motor truck from the standpoint of economy, actual money saving, should be supplemented by a thorough consideration of its value from the standpoint of service and advertising.

Advantages of Motor Trucks.

"That merchants and manufacturers in all lines are alive to the value of the motor truck is evident to all who get a broad view of the situation all over the world," according to John N. Willys, president of the Willys Overland Co., Toledo, O. He states that the progressive business man of today avails himself of every modern device for doing things economically, which at the same time is always a saver of time and labor. If merchants in all lines would make a practice of keeping itemized accounts of the cost of their delivery stystem, they would become easier converts to the use of motor trucks. All must concede that stable equipment must be maintained, whether business is active or dull, and the horse out of use is just as expensive as the horse that is giving full service. Compare this with the economy of the motor vehicle, which needs neither fuel nor oil except when in service, and which requires little stable room and attention when not in use. This is the most forcible, and will in all probability be the decisive feature in inducing merchants to abandon past methods in favor of power-wagon transportation. The amount of saving, of course, varies with individual business requirements; but, speaking in general terms, it may be said that a power-wagon kept in constant service will cut delivery cost from 20 per cent. upward. The cost of transportation can be determined just as logically as the cost of operating any other machine. It is merely a question of measuring the work required and measuring the cost and placing one against the other. In other words, you pay only for measured service. Delivery in large cities is becoming more and more difficult, owing to the enormous territory to be covered, especially where a large and successful trade is to be established and maintained. The range of delivery service has gradually become extended until the horse is incapable of covering the necessary distances during the day, and when used is practically unfit for service the following day whenever extended routes are attempted. With motor trucks these long routes are easily covered with dispatch, making possible earlier deliveries of goods in districts which previously did not receive deliveries until the following day.

FINANCIAL NEWS

The MANUFACTURERS RECORD invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

Review of the Baltimore Market.

Office MANUFACTURERS RECORD,
Baltimore, Md., July 31.

The Baltimore stock market has been dull during the past week. In the trading United Railways common sold from 24⅝ to 24½; do. income bonds, 64⅞ to 64¾; do funding 5s, 88¼ to 88⅜; do. notes, 102⅛ to 102; do. 4s, 85 to 84⅞; Consolidated Gas, Electric Light & Power common, 107½; do. preferred, 109½ to 110; do. 4½s, 88½; Seaboard Air Line common, 23⅛ to 23½; do. preferred, 52¾ to 53½; Seaboard 4s, stamped, 87½ to 87¼; do. adjustment 5s, 81¼; Mt. Vernon-Woodberry Cotton Duck 5s, 75 to 74¾; G.-B.-S. Brewing common, 4½; do. incomes, 14½.

Bank of Baltimore stock sold at 164; Mechanics' Bank, 29; Mercantile Trust, 151½; Union Trust, 64; Fidelity & Deposit, 153; Baltimore Trust, 162; United States Fidelity, 181.

Other securities were traded in as follows: Charleston Consolidated Electric 5s, 96¼; City & Suburban (Washington) 5s, 104¼; Consolidation Coal, 104 to 102; do. refunding 5s, 93⅝; Houston Oil common, trust certificates, 15 to 14, recovering to 14⅝; do. preferred do., 71 to 66½; do. dividend certificates, 87½ to 87; Augusta & Aiken common, 28½; New Orleans Great Northern 5s, 74 to 72½; Fairmont & Clarksburg Traction 5s, 100 to 100¼; Georgia Pacific 1st, 111½; Norfolk & Portsmouth Traction 5s, 89¾ to 90; Baltimore Electric 5s, stamped, 97½; Baltimore City 4s, 1951, 97½; do. do. 1958, 97½; do. 3½s, 1980, 87½; Northern Central Railway stock, 125; Atlantic Coast Line convertible debenture 4s, 104; do. consolidated 4s, 94⅝; do. 4s, certificates, 85¼; do. Connecticut 5-20s, 103¼; Maryland Electric 5s, 98½; Chicago Railways 5s, 100½; Georgia & Alabama consolidated 5s, 106¼; Erie Railroad, 35½; Washington, Baltimore & Annapolis 5s, 89½; Baltimore Traction 5s, 106½; Georgia Southern & Florida 5s, 105⅜; Carolina Central 4s, 92½; Atlantic Coast Line of Connecticut, 270; Georgia Southern & Florida first preferred, 97; Alabama Consolidated Coal & Iron 5s, 73; Pullman Ventilator preferred, 91½; Davidson Chemical 6s, 100.

SECURITIES AT BALTIMORE.

Last Quotations for the Week Ended July 31, 1912.

Railroad Stocks.	Par.	Bid.	Asked.
Atlantic Coast Line	100	140	...
Atlantic Coast of Conn.	100	267½	271
Georgia Sou. & Fla.	100	35	40
Georgia Sou. & Fla. 1st Pfd.	100	97	98½
Georgia Sou. & Fla. 2d Pfd.	100	80	90
Monon. Val. Trac. Pfd.	100	81½	82¼
Seaboard Com.	100	23¾	24
Seaboard Pfd.	100	53	54
United Rys. & Elec. Co.	50	24¼	25
Virginia Ry. & P. Com.	100	48	...
Virginia Ry. & P. Pfd.	100	88	...
Wash., Balto. & Annap. Pfd.	100	30½	...
Western Maryland	100	57¾	...
Bank Stocks.			
Bank of Baltimore	100	163½	165½
Bank of Commerce	15	30	...
Citizens'	10	42	43½
Drovers & Mechanics'	100	210	225
Exchange	100	158	165
Farmers & Merchants'	40	...	51½
First National	100	136	140
German-American	100	107	...
German	100	107	...
Howard	10	14½	...
Maryland	20	21	...
Merchants'	100	179	181½
Marine	20	42½	44
Mechanics'	10	...	30
Old Town	10	12½	...
Second National	100	200	...
Union	100	132	135
Western	20	37¼	38
Trust, Fidelity and Casualty Stocks.			
Fidelity & Deposit	50	151	153¾
Security Stor. & Tr.	100	160	170
Title Guar. & Trust	100	...	155
Union Trust	50	63	66
U. S. Fidel. & Guar.	100	...	182
Miscellaneous Stocks.			
Con. Gas, E. L. & P. Com.	100	107½	...
Con. Gas, E. L. & P. Pfd.	100	110	112
Consolidation Coal	100	102	102½
G.-B.-S. Brewing Co.	100	...	5
George's Creek Coal	100	½	...
Baltimore Brick	100	2	3
Baltimore Brick Pfd.	100	...	28
Baltimore Elec. Pfd.	..	43¼	44
Railroad Bonds.			
Atlantic Coast 1st 4s		...	94⅝
Atlantic Coast Conv. Deben. 4s		103⅝	104⅛
At. Coast (Conn.) 4s, Cfs., 5-20s		92	93
At. Coast (Conn.) 5s, Cfs.		103	104
At. Coast (S. C.) 4s		95	96
Balto. & Harris. Ext. 5s		103½	...
Carolina Central 4s		92½	...
Coal & Coke Railway 5s		91½	93½
Coal & Iron Railway 5s		101½	101⅝
Georgia & Alabama 5s		106	106⅞
Georgia, Car. & North. 1st 5s		105	105¾
Georgia Pacific 1st 6s		111	112
Georgia South. & Fla. 1st 5s		105½	105⅞
Maryland & Penn. Ter. 5s		...	104
New Orleans, Mob. & Chi. 5s		89	89¼
New Orleans Gt. Nor. 5s		72½	73
Potomac Valley 1st 5s		105½	107
Raleigh & Gaston 5s		105	106
Savannah, Fla. & West. 5s		109¼	...
Seaboard Air Line 4s		87	...
Seaboard 4s, Stamped		87¼	87¾
Seaboard Adjustment 5s		81¼	81½
Seaboard Refunding 4s		...	80¼
Suffolk & Carolina 5s		101	...
Virginian Railway 5s		...	99½
Wash., Balto. & Annap. 5s		89	89½
Washington-Vandemere 4½s		94½	96
Western Maryland 4s		80¾	...
Western N. C. Con. 6s		102½	...
Wilmington & Weldon 5s		109	110¼
Street Railway Bonds.			
Anacostia & Potomac 5s		95⅝	100
Atlanta Con. St. Ry. 5s		105	105½
Balto., Sp. Pt. & C. 4½s		96½	97¼
Baltimore Traction 1st 5s		...	100½
Charleston City Railway 5s		103½	107
Charleston Con. Electric 5s		95½	96½
Chattanooga Electric 5s		101¼	103
Citizens' R., L. & P., N. N., 5s		...	100¼
City & Suburban 5s (Wash.)		104½	104¾
Fairmont & Clarksburg Trac. 5s		100¼	100⅝
Knoxville Traction 5s		...	106½
Lexington Railway 1st 5s		94½	96½
Macon Railway & Light 5s		99¾	100½
Maryland Electric Railways 5s		98	99
Norfolk & Portsmouth Trac. 5s		89½	89⅞
Norfolk Street Railway 5s		105	...
Norfolk & Atlantic Ter. 5s		94	94⅞
United Railways 1st 4s		84¾	85
United Railways Income 4s		64½	65
United Railways Funding 5s		88⅝	88¾
United Railways Notes		102	102¼
Virginia Railway & P. 5s		96	97
Miscellaneous Bonds.			
Ala. Con. Coal & Iron 5s		73	80
Baltimore Electric 5s, Stp.		97⅜	98
Consolidated Gas 4½s		96	97¼
Con. Gas, Elec. Lt. & P. 4½s		88½	89
Con. Gas, Elec. Lt. & P. Notes		99¾	100
Consolidation Coal Refd. 5s		93	93½
Consolidation Coal Refd. 4½s		92	...
Fairmont Coal 1st 5s		96	...
G.-B.-S. Brewing 1st 4s		50¾	51½
G.-B.-S. Brewing Income 5s		14½	15
Jamison C. & C. 5s		93	...
Maryland Steel Co. 5s		100	...
Mt. Vernon-Woodb'y Cot. Duck 5s		74	75
United Elec. Lt. & P. 4½s		93½	...

SOUTHERN COTTON-MILL STOCKS.

Quotations Furnished by William S. Glenn, Broker, Spartanburg, S. C., for Week Ending July 29.

	Bid.	Asked.
Abbeville Cotton Mills (S. C.)	...	75
Aiken Mfg. Co. (S. C.)	...	55
American Spinning Co. (S. C.)	...	162
Anderson Cotton Mills (S. C.)	...	48
Anderson Cot. Mills (S. C.) Pfd.	...	100
Arcadia Mills (S. C.)	90	...
Arkwright Cotton Mills (S. C.)	99	100
Belton Mills (S. C.)	100	110
Brandon Mills (S. C.)	...	90
Brogon Mills (S. C.)	...	60
Chiquola Mfg. Co. (S. C.)	...	160
Clifton Mfg. Co. (S. C.) Pfd.	97	...
Clinton Cotton Mills (S. C.)	...	120
Courtnay Mfg. Co. (S. C.)	...	93
Dallas Mfg. Co. (Ala.)	99	...
D. E. Converse Co. (S. C.)	...	75
Drayton Mills (S. C.)	...	90
Eagle & Phenix Mills (Ga.)	...	106
Enoree Mfg. Co. (S. C.) Pfd.	85	100

Easley Cotton Mills (S. C.)	162	175
Enoree Mfg. Co. (S. C.)	25	62
Gaffney Mfg. Co. (S. C.)	72	75
Gainesville Cotton Mills (Ga.)	72	80
Glenwood Cotton Mills (S. C.)	130	140
Graniteville Mfg. Co. (S. C.)	135	145
Greenwood Cotton Mills (S. C.)	57	60
Grendel Mills (S. C.)	90	100
Hartsville Cotton Mill (S. C.)	160	...
Henrietta Mills (N. C.)	160	175
Inman Mills (S. C.)	...	100
King Mfg. Co., J. P. (Ga.)	80	85
Lancaster Cotton Mills (S. C.)	130	...
Lancaster Cot. Mills (S. C.) Pfd.	97	100
Langley Mfg. Co. (S. C.)	...	75
Laurens Mills (S. C.)	...	125
Limestone Mills (S. C.)	155	160
Lockhart Mills (S. C.)	...	60
Lockhart Mills (S. C.) Pfd.	90	100
Loray Cotton Mills (N. C.) Pfd.	...	95
Marlboro Cotton Mills (S. C.)	...	75
Mills Mfg. Co. (S. C.)	90	102
Mollohon Mfg. Co. (S. C.)	...	90
Monaghan Mills (S. C.)	105	...
Monarch Cotton Mills (S. C.)	110	...
Newberry Cotton Mills (S. C.)	125	130
Ninety-Six Cotton Mills (S. C.)	130	150
Norris Cotton Mills (S. C.)	...	115
Orr Cotton Mills (S. C.)	90	93
Pacolet Mfg. Co. (S. C.)	72	90
Pacolet Mfg. Co. (S. C.) Pfd.	95	100
Parker Common	...	20
Parker Pfd.	...	63
Pelzer Mfg. Co. (S. C.)	...	120
Poe Mfg. Co., F. W. (S. C.)	110	125
Saxon Mills (S. C.)	...	130
Spartan Mills (S. C.)	110	125
Trion Mfg. Co. (Ga.)	...	130
Tucapau Mills (S. C.)	300	350
Union-Buffalo (S. C.) 1st Pfd.	...	60
Union-Buffalo (S. C.) 2d Pfd.	...	15
Victor Mfg. Co. (S. C.)	110	115
Warren Mfg. Co. (S. C.)	90	90
Warren Mfg. Co. (S. C.) Pfd.	100	105
Washington Mills (Va.)	28	...
Washington Mills (Va.) Pfd.	106	110
Whitney Mfg. Co. (S. C.)	?	...
Wiscassett Mills (N. C.)	...	135
Woodruff Cotton Mills (S. C.)	95	100
Woodside Cotton Mills (S. C.)	...	100
Watts Mills (S. C.)	...	70
Williamston Mills (S. C.)	120	125

Convenient Bank Directory.

The American Bank Reporter's Special Desk Edition, dated June, 1912, has just been issued. This book, although of a size convenient to handle and will fit in a pigeon-hole of a desk, contains a vast amount of valuable information concerning banks and bankers, and hence is of especial value to anyone desiring a reference book of this character. It is neatly bound in red leather, with gold lettering, printed on good paper, and among its contents will be found an alphabetical list of all banks in the United States and Canada, including National, State, savings and private banks, arranged in States and showing the names of principal officers, correspondents, capital, loans, deposits, undivided profits, surplus, etc. The book is published by the Steurer Publishing Co., successor to Stumpf & Steurer, 5 Beekman street, New York.

FINANCIAL CORPORATIONS.

Ala., Talladega.—Official: It is contemplated to open a new bank, probably national, in the early fall; capital to be about $100,000. Hon. Leon G. Jones will be president, and it is expected that T. S. Plowman, George R. Burton, J. C. Bowie and others will be associated with him.

Ala., Tallassee.—The First National Bank is reported approved; capital $25,000. Directors, G. D. Patterson, S. P. Storrs, A. W. Herron and M. R. Jordan.

Ark., Chester.—Official: The Bank of Commerce incorporated; capital $10,000. Ezra J. Morgan is president; G. C. Smith, vice-president; A. C. Hornbeck, secretary, and C. W. Morgan, cashier. Business began July 16, 1912.

Ark., Murfreesboro.—Official: The Farmers and Merchants' Bank incorporated; capital $25,000. Directors, Hanson J. Marks of St. Louis, Mo., president; S. S. Langley and R. N. Alford, vice-presidents; Rosco Brewer, C. E. Wilson, D. W. Cornish and T. G. Kelley, all of Murfreesboro; A. C. Ramsey, Nashville, Ark., and N. W. McLead of St. Louis, Mo. Walter Womack will be cashier. Business is to begin about August 15.

Ark., Murfreesboro.—Official: The Farmers and Merchants' Bank chartered; capital $15,000. Business is to begin about August 15. Walter Womack and others interested.

Ark., Sheridan.—The Citizens' Bank, capital $20,000, is reported organized.

Fla., De Land.—The East Coast State Bank has filed articles of incorporation; capital $25,000. Cary D. Landis, president; H. F. Stewart, first vice-president; Michael Sholtz, second vice-president; Bert Fish, cashier, and Cary D. Landis, H. F. Stewart, Michael Sholtz, Bert Fish and James K. Atkinson, directors.

Fla., Orlando.—The Fraternal Building Association has filed articles of incorporation; capital $15,000. Officers: President, John W. Gettier; vice-president, M. S. King; secretary, John Dale; treasurer, P. F. Laubach; directors, John W. Gettier, M. S. King, E. S. Keyes, George A. Barker and John Dale.

Fla., South Jacksonville.—The Bank of South Jacksonville is reported to have begun business; capital $25,000. Directors: Harry Mason, president; H. B. Philips, first vice-president; Marcus Conant, second vice-president, and Harry Botts, cashier; A. J. Doyle and Charles A. Cheatham.

Ga., Atlanta.—The Trust Company of the South, capital $150,000, is reported chartered by G. Megahee, W. S. Lounsberry, John F. Cone, A. M. Schoen, M. C. Johnson and W. H. Pickett, Jr. The company, it is said, will be operated in connection with the Travelers' Bank, and by the same interests.

Ga., Hawkinsville.—John D. Walker of Sparta, Ga., according to press dispatches, will establish a bank, capitalized at $25,000, at Hawkinsville. Business is expected to begin by September 15.

Ga., Millwood.—L. J. Cooper, president of the First National Bank of Waycross, is said to be interested in the new bank now being organized.

Ga., Millwood.—Steps are reported being taken to organize a bank.

Ga., Osierfield.—A new bank, capitalized at $25,000, is being organized by J. W. Weaver, Willie J. Weaver and D. W. Pope.

Ga., Plains.—The Citizens' Bank of Plains is reported organized with $25,000 capital. Business is expected to begin about September 1.

Ga., Savannah.—Reported chartered: Chatham Insurance Co., capital $20,000. Those interested are A. R. Truslow, Allen Sweat and H. J. Corrigan.

Ky., Louisville.—The Court Bonding Co. is reported to have filed articles of incorporation; capital $3000; incorporators, Dr. R. E. Sullivan, Frank A. Douglas and Daniel E. Sullivan.

La., Grayson.—Official: The Grayson Bank chartered; capital stock $15,000. Directors: Dr. J. A. Biggs, president; C. E. Slagle, vice-president; Dr. O. A. Biggs, E. S. Pennington, J. W. Vincent, J. N. Valentine, W. R. Broadway, J. A. Warner and J. A. Meredith. Business is to begin about October 1.

Md., Baltimore.—The Equitable Mortgage & Trust Co. has been authorized to do business; capital $1,000,000. Business will begin about August 1. John R. Bland is president. (See Manufacturers Record May 23.)

Miss., Ocean Springs.—Official: The Farmers & Merchants' State Bank chartered; capital $25,000. Directors, Chas. E. Pabst, presiednt; A. C. Hornbeck, secretary, and C. R. Glascock, cashier; I. W. Simmons, W. E. Wilson, G. E. McEwen and E. S. Davis.

Miss., Olive Branch.—Official: The Bank of Olive Branch chartered; capital $20,000; incorporators, J. N. Brown, I. E. Birmingham, M. H. White, A. M. Haraway, J. D. Baker and T. H. Norvell. Business is to begin about October 1.

Mo., Kansas City.—Official: The Southwest National Bank of Commerce of Kansas City, which represents the consolidation of the Southwest National Bank and the National Bank of Commerce, both of Kansas City, began business July 22. Paid-up capital $3,000,000 and surplus $600,000. Fernando P. Neal, chairman of the board; J. W. Perry, president; John M. Moore, Charles H. Moore, W. L. Buechle and Edwin W. Zea, vice-presidents; Jas. T. Bradley, cashier; E. P. Davis, W. H. Glaskin, Chas. M. Vining and J. F. Meade, assistant cashiers.

Mo., St. Louis.—Official: The West End Bank, 6500 Delmar Ave., incorporated; capital $25,000. J. W. Harris is president and Ernest L. White cashier. Business is to begin about August 15.

N. C., Louisburg.—Reported approved: The Farmers' National Bank of Louisburg; capital $50,000. J. M. Allen, J. O. Beasley, J. B. Smith, J. C. Harrington, R. H. Strickland and others, directors; K. K. Allen, correspondent, Louisburg, N. C.

Okla., Altus.—Official: The Citizens' State Bank chartered; capital $25,000; surplus $1500. Fred B. Jones, president; J. W. Richardson, cashier, and C. W. Hogsett, assistant cashier. Business began July 5.

S. C., Bennettsville.—The Mutual Trust Co. is reported to have been granted a commission; capital $10,000. Petitioners, J. W. LeGrand, Z. D. Hardin and T. B. McLaurin.

Tex., Center.—A trust company, capitalized at $100,000, is reported being organized. Directors: W. P. Owens, president; J. S. Kendy, vice-president; H. Ray, secretary and treasurer; W. M. Harman, fiscal agent; W. A. Cumby, T. T. Smith, Noble Weaver and E. C. Smith.

Tex., Dallas.—Official: The People's Trust Co., capital $5,000,000, has organized with T. H. Nees and R. A. Gilliam, vice-presidents; P. M. Travis, secretary; president not yet elected. As soon as sufficient stock is placed business will begin. Offices, 214-15-16-17-18 Linz Bldg.

Tex., Gregory.—Reported approved: The First National Bank of Gregory; capital $25,000; Joseph F. Green, correspondent, Gregory, Tex.; J. Tomlinson, C. H. Alvord, S. G. Porter and J. W. Hunt, directors. This succeeds the Taft Ranch Bank of Georgia.

Tex., Pilot Point.—The First State Bank, recently chartered with $20,000 capital, is reported to have elected directors thus: F. A. Wright, president; J. M. Jones, first vice-president; W. E. Atkins, second vice-president; W. B. McShan, cashier; S. F. Gainer, G. A. Tisdell.

Tex., Port O'Connor.—A new building and loan association is being organized. I. J. Thompson is among those interested.

Tex., Temple.—A trust and banking company, capitalized at $200,000, is being organized by Charles M. Campbell, H. C. Glenn, T. B. Duggan, J. M. Woodson and George C. Pendleton. Business is to begin September 1.

Va., Richmond.—The Fidelity Loan & Savings Co. is reported chartered; capital $50,000 to $100,000. Incorporators, Thomas Gresham, president; H. D. Eichelberger, vice-president; T. Garnett Tabb, treasurer; J. F. Strother, secretary.

Va., Richmond.—Reported chartered: Fidelity Loan & Savings Co. incorporated; capital $50,000 to $100,000; Thomas Gresham, president; H. D. Eichelberger, vice-president; T. Garnett Tabb, treasurer; J. F. Strother, secretary; all of Richmond.

W. Va., Reedy.—The First National Bank is reported to have made application for a charter; capital $25,000. J. M. Lester, correspondent; G. M. Hamric, G. M. Duke, M. Depu and J. H. Seaman, directors.

NEW SECURITIES.

Ala., Leesburg.—Reported defeated: $30,000 of sewerage bonds.

Ala., Mobile.—Reported that on September 2 an election is to be held to vote on $100,000 of municipal improvement bonds.

Ala., Stevenson.—Official: The New First National Bank of Columbus, O., has purchased at par $14,500 of 5 per cent. 30-year water-works bonds. B. G. Houser is chairman Board of Commissioners.

Ala., Talladega.—Official: Bids will be received until 6 P. M. August 10 for $25,000 of 5 per cent. 30-year municipal street-improvement bonds; denomination $500. A. G. Weldon is City Clerk. *Further particulars will be found in the advertising columns.*

Fla., Miami.—August 6, it is reported, an election is to be held to vote on $40,000 of water-works and sewer bonds.

Fla., Orlando.—Orlando district, Sanford county, contemplates, it is reported, issuing $350,000 of road bonds.

Fla., Orlando.—Official: Bids will be opened on October 1 for $200,000 of 5 per cent. 30-year Sanford District, Orange county, road bonds voted July 13, 1912; dated October 1, 1912; denomination $1000. Address Frank L. Woodruff, Sanford, Fla.

Fla., St. Petersburg.—Reported that the $200,000 of 6 per cent. 30-year public improvement bonds offered July 25 were awarded as follows: New First National Bank, Columbus, $170,000 at $1700 premium; American State Bank, St. Petersburg, $25,000 at $2000 premium; S. W. Smith, Port Alleghany, Pa., $5000 at 107.30.

Ga., Augusta.—The $1,000,000 of river protection, $100,000 of water-works extension and $150,000 of city hospital bonds voted last June have been validated, and it is stated will soon be placed on the market.

Ga., Cartersville.—W. M. McCafferty was awarded the $50,000 of 5 per cent. water, light and school bonds at $52,050 and accrued interest.

Ga., Conyers.—Official: Voted: $60,000 of bonds as follows: Water, $40,000; sewerage, $20,000. W. R. Still is Mayor.

Ga., Cordele.—Official: Bids will be received until noon August 21 for $40,000 of paving and street improvement, $40,000 of water-works improvement and extension, $10,000 of school improvement and $5000 of sewerage extension 5 per cent. 30-year bonds; denomination $1000. W. H. Dorris is Mayor and G. S. Harris, City Clerk. *Further particulars will be found in the advertising columns.*

Ga., Forsyth.—August 2, it is reported, an election is to be held to vote on $30,000 of school bonds.

Ga., Lexington.—On August 21 an election is to be held in Oglethorpe county to vote on $40,000 of road and $10,000 of bridge 5 per cent. bonds. W. J. Knox is Commissioner of Roads and Revenue of Oglethorpe county.

Ga., Macon.—Bids will be received until noon August 24 for $40,000 of 4½ per cent. water-works bonds; denomination $1000. W. H. Fetner is chairman Board of Commissioners.

Ga., Nashville.—Reported voted: $12,000 of sewerage and $3000 of school bonds.

Ga., Newnan.—August 21 an election is to be held to vote on $300,000 of 4 per cent. 15-30-year Coweta county road bonds. J. Littleton Jones is clerk Commissioners.

Ga., Oakhurst.—August 24, it is reported, an election is to be held to vote on $11,000 of water-works and $7000 of sewer bonds.

Ga., Valdosta.—Official: Voted: $55,000 of water-works, $25,000 of paving, $15,000 of sewerage extension and $5000 of cemetery bonds; denomination $1000; dated January 1, 1913. Press dispatches state the bonds will soon be placed on the market. John T. Roberts is Mayor.

La., Baton Rouge.—According to press dispatches, Louisiana has perfected plans to retire the present $11,000,000 of State debt bonds by an issue bearing 4 per cent.

La., New Iberia.—Reported that an election is to be held in Iberia parish to vote on $180,000 of 20-year road bonds.

La., Shreveport.—It is reported that $50,000 of 4 per cent. refunding bonds will soon be offered.

Md., Towson.—Official: Bids will be received until noon September 3 for $300,000 of 4½ per cent. Baltimore county road bonds; denomination $1000. William F. Coghlan is Commissioner of Baltimore county and E. Stanton Bosley, chief clerk and auditor.

Miss., Brookhaven.—City will issue, it is reported, $35,500 of 5 per cent. refunding bonds.

Miss., De Kalb.—Reported voted: $10,000 of school bonds.

Miss., Okolona.—The People's Bank & Trust Co., Tupelo, Miss., purchased at par and accrued interest $50,000 of 5 per cent. road bonds of District No. 3, Chickasaw county.

Miss., Okolona.—Reported that $15,000 of street bonds have just been issued.

Miss., Pheba.—A. J. McMahan of Oklahoma City is reported to have purchased at 100.025 and interest $4000 of 6 per cent. 20-year Clay County Agricultural High School dormitory bonds; denomination $500.

Miss., Prairie.—Official: The First State Bank, Prairie, purchased on July 3 at par $3500 of 5 per cent. street-paving bonds; denomination $100; dated July 3, 1912.

Miss., Raleigh.—Reported that District No. 3, Smith county, will issue $25,000 of road bonds.

Mo., Greenfield.—The $47,000 of 6 per cent. Cedar and Washington township (Dade county) road bonds were purchased at par by Sutherlin & Co. of Kansas City, Mo.

Mo., Hermann.—Reported voted: $35,000 of water-works and sewer bonds.

Mo., Linneus.—Linn county is reported to have recently voted $60,000 of courthouse bonds.

Mo., St. Joseph.—August 3, it is reported, an election will be held in Buchanan county to vote on $1,000,000 of 4 per cent. 20-year road bonds.

Mo., Whitesville.—The Farmers' Bank of Whitesville is reported to have purchased $3000 of Whitesville School District bonds.

N. C., Charlotte.—Mayer, Deppe & Walter of Cincinnati have been awarded at 104.55 and accrued interest the $300,000 of 6 per cent. 10-year special street-improvement bonds. E. W. Thompson is chairman finance committee.

N. C., Greensboro.—Reported voted: $130,000 of street, water, sewerage, market and opera-house and city hall bonds.

N. C., Hayesville.—Reported sold: $5000 of 6 per cent. 10-year Clay county bonds.

N. C., Roxboro.—Reported sold: $22,500 of street-improvement bonds.

N. C., Statesville.—Mayer, Dippe & Walter of Cincinnati are reported to have purchased $150,000 of 5 per cent. Iredell county

[For Additional Financial News, See Page 94.]

Established 1835

The Merchants National Bank

South and Water Sts., BALTIMORE, MD.

DOUGLAS H. THOMAS, President.
WM. INGLE, Vice-Pres. and Cashier.
J. C. WANDS, Asst. Cashier.
JOHN B. H. DUNN, Asst. Cashier.

Capital $1,500,000
Surplus and Profits - - - $900,000
Deposits $12,000,000

Accounts of Banks, Bankers, Corporations and Individuals solicited. We invite correspondence.

THE FIRST NATIONAL BANK

OF KEY WEST, FLA.

United States Depository and Disbursing Agent.

Capital - - - - - - $100,000
Surplus and Undivided Profits - $40,000

A general banking business transacted.
Special attention given to collections.

INVESTMENT SECURITIES

Southern Stocks and Bonds
Municipal and Corporation
Cotton Mill Stock a Specialty

WM. S. GLENN, Broker - SPARTANBURG, S. C.

JOHN NUVEEN & CO.

1st Nat. Bank Bldg., CHICAGO

We purchase SCHOOL, COUNTY and MUNICIPAL BONDS. Southern Municipal Bonds a Specialty.

Write us if you have bonds for sale.

Delaware Trust Company

WILMINGTON, DELAWARE

INCORPORATING under broad, liberal, safe and stable Delaware laws. A fully equipped department for proper organization and registration of corporations.

BANKING AND TRUST department gives special attention to out of town customers' accounts.

TITLE DEPARTMENT examines and guarantees title to realty throughout Delaware.

REALTY DEPARTMENT has sites for manufacturing industries. Modern Methods of management of property.

EDWARD T. CANBY, President.
J. ERNEST SMITH, V.-Pres. and Gen. Counsel.
WM. G. TAYLOR, Treasurer.
HARRY W. DAVIS, Secretary.
W. W. PUSEY, 2d Title and Real Estate Officer.

H. B. Wilcox, President Blanchard Randall, V.-Pres.
Wm. S. Hammond, Cashier
Saml. W. Tschudi, A. Cash. R. E. Bolling, A. Cash.

The First National Bank

17 South St., Baltimore, Md.

Capital - - - - - - $1,000,000
Surplus and Net Profits - - 400,000
Deposits - - - - - - 6,500,000

Especially well equipped to handle the business of Southern Banks, Corporations, and Individuals and Manufacturers. We cordially invite correspondence and interviews.

The National Exchange Bank

OF BALTIMORE, MD.

Hopkins Place, German and Liberty Sts.

Capital, $1,000,000
July 15, 1908, Surplus and Profits, $671,631.60

OFFICERS:

WALDO NEWCOMER, President.
SUMMERFIELD BALDWIN, Vice-Pres.
R. VINTON LANSDALE, Cashier.
C. G. MORGAN, Asst. Cashier.

Accounts of Mercantile Firms, Corporations, Banks, Bankers and Individuals Invited.

SURETY BONDS

Fidelity & Deposit Co.

OF MARYLAND

Home Office, - - BALTIMORE, MD.

Total Assets Dec. 31, 1911, $8,133,000.57

Pioneer Surety Co. of the South.
Becomes Surety on bonds of every description.

AGENTS IN ALL PRINCIPAL CITIES

HARRY NICODEMUS, Sec'y and Treas. EDWIN WARFIELD, President

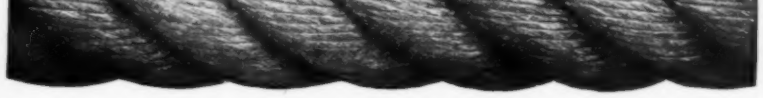
Southern Steam Railroad Securities

DEALT IN

F. J. LISMAN & CO.

Specialists in Steam R. R. Securities
Members New York Stock Exchange

30 Broad Street NEW YORK
33 Pearl Street, Hartford
Land Title & Trust Bldg., Philadelphia





Some Reasons Why "AMERICAN" TRANSMISSION ROPE

has proved the most economical drive rope to buy:

1. Best quality pure long-fiber Manila hemp used throughout.
2. Thoroughly stretched in process of manufacture.
3. Outer yarns edged to retard external wear.
4. Laid up in special waterproofing and lubricating mixture.
5. Requires no external dressing.
6. Cut to exact lengths required; no waste.
7. Coils 10,000 feet long without a splice.
8. Large stock in all sizes insures prompt shipments.

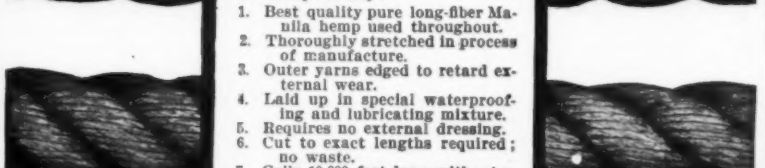
Write us when in the market, and don't fail to get THE BLUE BOOK OF ROPE TRANSMISSION.

Sent free upon request.

AMERICAN MFG. CO.

Largest Workers of Fiber in the World.

Noble and West Sts. BROOKLYN, N. Y.



The American Mfg. Co. also makes Manila, Sisal and Jute Rope; India, Italian and American Hemp Marlines, and Fine Twines, Bag String, Compress Twine, Bale, Rope, Lath and Fodder Yarn, etc. Write for samples and prices.

CAPITAL AND SURPLUS - - - - - $3,500,000

THE BALTIMORE TRUST CO.

BALTIMORE, MD.

Solicits Accounts of Banks, Bankers, Corporations and Individuals.
Interest Allowed on Deposits Subject to Check.
Special Rates Made on Time Deposits.

OFFICERS

DOUGLAS H. GORDON, President — CHAS. D. FENHAGEN, Vice-Pres.
GEORGE C. MORRISON, Vice-Pres. — EDWIN W. POE, Sec.-Treas.



Incorporated

BUSINESS ANALYSTS INVESTIGATORS SYSTEMATIZERS

YOUR BUSINESS SOLICITED

P. W. ROBERTSON, President

Certified Public Accountant.
Fellow Institute of Accounts, New York.
Fellow Va. Society of Public Accountants.

WE BUY City, County, School and Drainage BONDS

FROM MUNICIPALITIES OR CONTRACTORS

We are in position to pay HIGHEST PRICES. Write or wire us your offerings.

THE NEW FIRST NATIONAL BANK, Assets, $6,000,000 Columbus, Ohio

CHARLES L. HEHL, C. P. A., President — ELMER L. HATTER, C. P. A., Treasurer
JOHN KÜCHLER, C. P. A., Vice-President — ERNEST E. WOODEN, C. P. A., Secretary

BALTIMORE AUDIT COMPANY

1027-1033 Calvert Building BALTIMORE, MD.

BRANCH—Monticello Arcade Building, Norfolk, Va.



GO SOUTH!

FOR SALE Timber, Coal, Iron, Ranch, Phosphate, Other Properties, Southern States, West Indies, Mexico.

SOUTHERN STATES DEVELOPMENT CO.
(Brokers) GEO. B. EDWARDS, Prest.
Tribune Building NEW YORK, N. Y.
Negotiations, Investigations, Settlements, Purchases of Property, Information

Phone Main 432. Member N. O. Stock Exchange

S. A. TRUFANT

403 Hennen Building
NEW ORLEANS, LA.
Investment Securities

CHARLES NEVILLE

Certified Public Accountant
501-502 Savannah Bank & Trust Co. Bldg.
SAVANNAH, GA.

Employing a staff of thoroughly qualified accountants

Southern Investment Securities

Timber, Coal and Mineral Lands

J. H. C. BARR

Land Title Building Philadelphia, Pa.

Municipal Bonds Purchased

Correspondence invited from Investors wishing to sell their holdings of seasoned marketable Municipal Bonds, and from municipal officials and contractors in connection with entire new issues.

N. W. HALSEY & CO.

49 Wall Street, New York

PHILADELPHIA CHICAGO SAN FRANCISCO

RESOURCES - - - - - - $14,975,352.57

DEPOSITS DEC. 31, 1909..... $ 8,041,252.59
DEPOSITS DEC. 31, 1910..... 8,809,843.00
DEPOSITS DEC. 31, 1911..... 10,344,570.57

This growth indicates that we have the ability and disposition to give GOOD TRUST COMPANY SERVICE. We can prove it—to your advantage.

ALLOWS INTEREST on daily balances of $500 or over, subject to check, and special rates for time deposits.

ACTS AS TRUSTEE under mortgage, Registrar and Transfer Agent of Stocks and Bonds of Corporations.

Securities held on deposit for out-of-town corporations and individuals.

Acts as Financial Agent for Municipalities and Corporations.

MERCANTILE TRUST & DEPOSIT COMPANY

OF BALTIMORE

CAPITAL - $1,500,000.00 SURPLUS - $3,000,000.00

road bonds; denomination $1000; dated August 1, 1912.

N. C., Williamston.—Reported that all bids received for the $25,000 of 6 per cent. 30-year Williamston township road bonds were rejected. H. M. Burras is chairman Board of Commissioners.

N. C., Winston-Salem.—Voted: $400,000 of 4½ per cent. 40-year school, street, hospital and pleasure-park bonds. R. I. Dalton is Mayor. A syndicate composed of the Wachovia Bank & Trust Co. of Winston-Salem, a banking firm of Spartanburg, S. C., and A. B. Leach & Co. of New York are reported to have purchased the bonds.

Okla., Eufaula.—Reported that plans are being made to hold an election to vote on $75,000 of water-works and sewer bonds.

Okla., Guthrie.—Official: Voted July 18: $25,000 of 5 per cent. bridge bonds; denomination $1000; dated August 1, 1912. J. E. Nissley is Mayor.

Okla., McAlester.—George W. Pierson of Oklahoma City is reported to have purchased $60,000 of 5 per cent. 25-year school bonds at par and expenses.

Okla., Muskogee.—Official: The District Court has authorized the issuing of $63,743.65 of 5 per cent. 20-25-year funding bonds; denomination $1000. John B. Kennedy is commissioner of finance.

Okla., Tulsa.—Reported that all bids received for the $150,000 of school bonds, recently voted, were rejected, and that new bids will be opened on August 2.

Okla., Norman.—August 6, it is reported, an election is to be held to vote on $20,000 of bridge bonds.

S. C., Blackville.—Reported voted: $28,000 of water-works and sewerage bonds; J. C. Matthews, C. F. Wilson and Dr. L. F. Bonner, Board of Public Works.

S. C., Rock Hill.—Reported voted: $50,000 of additional bonds for improving the water supply.

S. C., Spartanburg.—Official: The $200,000 of bonds voted July 16 are 20-30-year 4½ per cents; date of opening bids not yet decided. J. B. Carlisle is City Clerk and Treasurer and J. H. Shores superintendent of streets.

S. C., White Stone.—Official: Bids are being received by W. W. Murph, clerk and treasurer, for $5000 of 5½ per cent. 10-20-year school district bonds; denomination $500. Bonds were voted July 20.

Tenn., Morristown.—Official: The Tennessee Indemnity Co. has purchased at $800 premium the $25,000 of 5 per cent. Hamblen county road repair bonds; denomination $1000; dated June 1, 1912; maturity June 1, 1952. James H. Beal is chairman Pike Commissioners.

Tenn., Tullahoma.—H. C. Speer & Sons Company of Chicago are reported to have purchased $25,000 of 5 per cent. 5-20-year sewer bonds.

Tex., Austin.—The $1,500,000 of municipal improvement bonds recently approved will, it is stated, soon be ready for sale.

Tex., Austin.—The Attorney-General has approved the following securities: $7500 of 5 per cent. 10-40-year bonds of Cottle county common school district No. 17; $6000 of 5 per cent. 10-40-year Richards independent school district bonds; $100,000 of sewer, $200,000 of schoolhouse, $475,000 of city hall, $400,000 of water-works improvement and $125,000 of fire station 4½ per cent. bonds of Dallas; $12,000 of 5 per cent. 10-40-year Alma independent school district, Ellis county; $30,000 of street improvement, $7000 of sewer and $20,000 of electric light 5 per cent. 10-40-year bonds of Nacogdoches; $3000 of 5 per cent. 5-20-year bonds of common school district No. 2, Nacogdoches county; $18,000 of Deport high-school building bonds; $30,000 of street-improvement, $7000 of sewer and $20,000 of electric-light 5 per cent. 10-40-year bonds; $3000 of 5 per cent. 5-20-year bonds of common school district No. 2, Nacogdoches county.

Tex., Bremond.—Reported voted: $100,000 of good-roads bonds.

Tex., Collegeport.—Press dispatches state that $12,000 of bonds of common school district No. 17 (Collegeport), Matagorda county, were recently voted. Address County Judge W. S. Holman, at Bay City.

Tex., El Paso.—The question of issuing $150,000 of water-works bonds is reported under consideration. C. E. Kelly is Mayor.

Tex., Fort Worth.—Reported defeated: $100,000 of hospital bonds.

Tex., Garrison.—Bids will be received at any time, it is reported, by C. R. Langston, treasurer Board of Education, for $5000 of 5 per cent. 40-year independent school district building bonds.

Tex., Howland.—Reported that bids will be received until August 1 by T. F. Justist, secretary Board of Education, for $10,000 of 5 per cent. 10-40-year independent school district building bonds; denomination $1000; dated May 1, 1912.

Tex., Loraine.—Reported defeated: $30,000 of Loraine precinct, Mitchell county, good-roads bonds.

Tex., Paris.—August 17, it is reported, an election is to be held to vote on $100,000 of road bonds. Address Commissioners' Court.

Tex., Rising Star.—Reported sold: $20,000 of school bonds.

Tex., Sherman.—Reported voted: $198,000 of permanent improvement bonds.

Tex., Smithfield.—Reported that $7500 of Smithfield Independent School District bonds voted July 6 have been declared valid and will be put on the market within 10 days.

Tex., Swan.—Reported voted: $6000 of school bonds.

Tex., Vickery Stop. P. O. Dallas.—Hugh N. Swain is reported to have purchased $6000 of bonds of common school district No. 9, Vickery Stop.

Tex., Waxahachie.—Official: Bids will be opened on August 15 by J. C. Lumpkins, County Judge, for $73,000 of 5 per cent. 40-year permanent road-improvement bonds; denomination $1000; dated August 15, 1912. Bonds were voted May 11.

Tex., Yoakum.—August 15, it is reported, an election is to be held to vote on $32,000 of sewer bonds.

Va., Bowling Green.—Reported defeated: $125,000 of Caroline county highway bonds.

Va., Grant.—Reported that the Mellon National Bank, Pittsburgh, and the First National Bank, Chester, were awarded $20,000 of 5 per cent. 10-34-year school district building bonds at $156 premium.

Va., Accomac.—The $10,000 of 30-year Accomac county road bonds are reported to have been awarded at par as follows: Thos. P. Selby, Chincoteague, $2000; David H. Lewis, Chincoteague, $2000; Farmers and Merchants' National Bank, Onley, $6000.

Va., Chase City.—It has been found necessary to hold another election August 29 to vote on the $25,000 of water and $20,000 of sewerage 5 per cent. bonds; denomination $1000; dated September 1 and payable in 30 years. Bids are now being received. N. H. Williams is treasurer and chairman of committee.

Va., Culpeper.—Official: Bids will be received until August 19 by W. E. Coons, Clerk, for $40,000 of the $120,000 of 5 per cent. road and street bonds of Catalpa Magisterial District voted April 20.

Va., Dublin.—Official: Bids will be received until August 10 for $10,000 of 5 per cent. 15-30-year water bonds; denomination $500; dated August 10, 1912; maturity August 10, 1942. Bonds were voted January 11, 1912. Address W. Crockett. J. R. Bentley is clerk of Council.

Va., Eastville.—Bids will be received until noon August 15 by Geo. T. Tyson, clerk Board of Supervisors of Northampton county, for $5000 of 5-30-year Franktown Magisterial District road bonds.

Va., Newport News.—Reported voted: $25,000 of bonds to purchase water-front harbor and municipal pier.

Va., Pulaski.—Official: An election is to be held in September to vote on $50,000 of sewerage bonds. John T. Loving is Mayor. It is reported that the City Council has decided to rescind the recent action relative to a bond issue for $25,000 for street improvements.

W. Va., Kingwood.—At the fall election Preston county will vote on $200,000 of road-improvement bonds.

W. Va., Rowlesburg.—Reported that $9000 of water and $2000 of sewerage 5 per cent. bonds were recently voted.

FINANCIAL NOTES.

The Virginia-Carolina Chemical Co., Richmond, Va., has declared a dividend of 3 per cent. on its common stock, payable 1½ per cent. on August 15, 1912, and 1½ per cent. on August 3, 1913. S. W. Travers is treasurer.

No. 6, Volume 7, of the Solicitor, dated August, 1912, has just been issued. It is published monthly by the Wachovia Bank & Trust Co. at Winston-Salem, N. C.

The Travelers' Bank & Trust Co., Atlanta, Ga., will absorb the Sixth Ward Bank and run it as a branch. The Travelers' Bank & Trust Co. will increase its capital stock $100,000 and surplus $25,000, making the capital $300,000 and surplus account $75,000. John F. Cone is president and W. S. Lounsbury vice-president.

A Good Investment

With absolute guarantee of the safe return of the principal is what an investor desires.
We believe we have what you want.
Write us.

TENNESSEE MORTGAGE & INVESTMENT CO.
JACKSON, TENN.

Virginia-Carolina Chemical Co.
Office of Treasurer.
Richmond, Va., July 12, 1912.

The Board of Directors of this Company have this day declared a dividend of Three Per Cent. (3%) on the Common Stock of the Company, payable 1½% on August 15, 1912, and 1½% on February 15, 1913, respectively, to stockholders of record on August 3, 1912, and February 1, 1913. For the purposes of said dividend the Common Stock transfer books will be closed from 12 noon on Saturday, August 3, to 10 A. M. Friday, August 16, 1912, and from 12 noon on Saturday, February 1, to 10 A. M. Monday, February 17, 1913.

S. W. TRAVERS, Treasurer.

Capital for Southern Industries

Peabody, Houghteling & Co.
(Established 1865)
105 So. La Salle Street CHICAGO, ILLINOIS

HOWARD & COMPANY
INDUSTRIAL MINERALS **BROKERS** COTTON SEED PRODUCTS
Foreign and Domestic Fertilizer Materials. Import and Export Freight Contractors.
Custom House Brokers and Forwarding Agents.
Cables—DESPATCH SAVANNAH, GA.

To Manufacturers and Capitalists
Contemplating the Establishment of Industrial Enterprises
Attention is called to the exceptionally favorable location of
NEWPORT NEWS, VA.
on Hampton Roads, fifteen miles from the sea. Deep water, railway and sea transportation facilities unrivaled. Climate salubrious. Apply to
W. B. LIVEZEY, President
OLD DOMINION LAND COMPANY
NEWPORT NEWS, VA.

The oldest Stationery House in America, and one of the largest, offers to send, express prepaid, their recently published catalog which illustrates, describes and prices all kinds of Stationery, Office Furniture, and Office Labor-Saving Devices. Sent free on request to all purchasers of Office Supplies by

LUCAS BROTHERS, Inc.
BALTIMORE, MD.